



Alaska Energy Statistics

1960-2008

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ALASKA ENERGY STATISTICS

TABLE OF CONTENTS

INTRODUCTION.....	6
REPORT HIGHLIGHTS	8
ELECTRIC POWER STATISTICS.....	11
Part 1. SUMMARY TABLES.....	12
Table 1.a Utility Installed Capacity: by Type of Utility.....	12
Table 1.b Utility Net Generation: by Type of Utility.....	13
Table 1.c Utility Sales, Revenues, and Customers by Type of Utility.....	14-16
Part2. ELECTRIC UTILITIES TABLES.....	17
INSTALLED CAPACITY.....	17
Table 2.1a Installed Capacity by Prime Mover by Plant.....	17
Table 2.1b Installed Capacity by Prime Mover (Percent Distribution).....	32
DISPOSITION.....	41
Table 2.2 Net Generation and Total Disposition (MWH).....	41
NET GENERATION.....	46
Table 2.3a Net Generation by Prime Mover.....	46
Table 2.3b Net Generation by Fuel Type and Fuel Use.....	56
Table 2.3c Net Generation, Fuel Use, and Fuel Cost by Plant.....	66
REVENUE AND CUSTOMERS.....	76
Table 2.4a Utility Sales, Revenue, and Customers.....	76
Table 2.4b Average Annual Energy Use and Cost.....	86
Table 2.4c Pro Forma Monthly Residential Electric Bills.....	94
Part 3. ALASKA INDUSTRIAL ELECTRICITY STATISTICS.....	99
Table 3.1 Installed Capacity.....	99
Table 3.2 Net Generation.....	100
Table 3.3 Fuel Use.....	101

Part 4. ALASKA MILITARY ELECTRICITY STATISTICS.....	102
Table 4.1 Installed Capacity.....	102
Table 4.2 Net Generation.....	102
Part 5. ELECTRIC UTILITY HISTORICAL TABLES.....	103
Table 5.1 Utility Installed Capacity by Prime Mover.....	103
Table 5.2 Utility Installed Capacity by Region.....	105
Table 5.3 Utility Net Generation by Fuel.....	107
Table 5.4 Utility Net Generation by Region.....	109
Table 5.5 Utility Sales, Revenue, and Customers.....	111
Table 5.6 Average Annual Energy Use and Cost.....	113
Part 6. CO2 EMISSIONS FROM ELECTRIC GENERATION.....	115
Table 6.1 Utility CO2 Emissions.....	115
Figure 6.1 Utility Potential CO2 Reductions from Efficiency Gains.....	128
Figure 6.2 Utility Potential Fuel Energy Savings from Efficiency Gains.....	128
Table 6.2 Industrial CO2 Emissions.....	129
Figure 6.3 Industry Potential CO2 Reductions from Efficiency Gains.....	130
Figure 6.4 Industry Potential Fuel Energy Savings from Efficiency Gains.....	130
ALASKA RAILBELT.....	131
Table 7.1 Railbelt Installed Capacity.....	132
Table 7.2 Railbelt Hydroelectric Generation Plants.....	133
Table 7.3 Hydroelectric Monthly and Annual Energy (MWh).....	133
ALASKA RENEWABLE ENERGY.....	134
Figure 8.1 Funding for Renewable Energy Fund Projects, by Type.....	134
Table 8.1 Four Dam Pool Hydroelectric Projects.....	135
Table 8.2 Bradley Lake Hydroelectric Utility Shares.....	135
Table 8.3 Installed Hydroelectric Capacity in Alaska.....	136
Table 8.4 Planned New Hydroelectric Capacity in Alaska.....	137
Table 8.5 Commercial and Institutional Ground-Source Heat Pumps.....	137
Table 8.6 Geothermal Electricity Production.....	138
Table 8.7 Community-Level Biomass Thermal Installations.....	139
Table 8.8 Community-Level Biomass Combined Heat and Power Installations.....	140
Table 8.9 Installed Wind Capacity.....	141

ALASKA ENERGY BALANCE.....	142
Table 9.1 Summary of Energy Balance in Alaska (2008, Btu).....	144
Figure 9.1 Alaska Energy Flow.....	146
Figure 9.2 Composition of Total Energy Extracted.....	148
Figure 9.3 Utility Electricity Generation by Fuel Type.....	148
Table 9.2 Summary of Energy Balance in Alaska (2008, Commodity Units).....	150
Figure 9.4 Consumption per Capita of Energy in Alaska.....	152
Figure 9.5 Average Price of Natural Gas for All Consumers in Alaska.....	153
Figure 9.6 Average Price of Electricity for All Consumers in Alaska.....	153
Figure 9.7 Average Price of Petroleum Products in Alaska.....	154
Figure 9.8 Price for Electricity Over Time by Community.....	155
Figure 9.9 Price of a Gallon of Heating Oil over Time by Community.....	155
Figure 9.10 Price of a Gallon of Gasoline over Time by Community.....	156
Figure 9.11 Price of Propane over Time by Community.....	156
Table 9.3 Percent of Housing Units within Each Region Using Each Type of Fuel..	158
Figure 9.12 Percent of Housing Units within Each Region Using Each Type of Fuel..	158
Table 9.4 Percent of Housing Units within Each Region with Number of Rooms...	158
Table 9.5 Heating Degree Days in Select Places in Alaska.....	159
Table 9.6 Conversion Factors (Commodity Units to BTU).....	161
APPENDICES.....	162
A. Glossary of Terms.....	162
B. Utility List	170
C. Maps of Energy Regions.....	179
D. Data sources for Electric Power Statistics.....	181
E. Reporting Requirements.....	183

INTRODUCTION

Prior to 1985, the federal Alaska Power Administration published the *Alaska Electric Power Statistics*. Then, the Alaska Energy Authority (formerly the Alaska Power Authority) began gathering statistical data and publishing this annual report. In 1988, the *Alaska Electric Power Statistics* report became a combined effort between the Alaska Systems Coordinating Council and the Alaska Energy Authority. Beginning in 1993, the report became a joint effort between the Alaska Systems Coordinating Council and the Alaska Department of Community and Regional Affairs, Division of Energy. After the 1995 report, no further reports were published until 2003 when a report was prepared by the Institute of Social and Economic Research (ISER), University of Alaska Anchorage (UAA), with funding provided by the Alaska Energy Authority (AEA), the Regulatory Commission of Alaska (RCA), and the Denali Commission.

This twenty-third edition of the *Alaska Electric Energy Statistics* was prepared by the Institute of Social and Economic Research. Information on utility, industry, and military electricity capacity, generation, and other characteristics was gathered primarily from reports filed with the U.S. Department of Energy (DOE), Energy Information Administration (EIA) and made available on their website. This was supplemented by data collected by the Alaska Energy Authority through the Power Cost Equalization (PCE) program and a limited number of direct contacts with electric power producers in the state. This is a similar methodology used to develop information for the 2003 report.

All producers of electricity with installed capacity greater than one megawatt are required by law to report their operations to the federal government. A number of utilities in Alaska fall below that installed capacity threshold. Information for these smaller utilities came primarily from the PCE program. The installed capacity table (Table 2.1a) includes all utilities for which data are available.

Industrial and military producers of electricity are also required by law to report their operations to the federal government. However, we found that the reporting of those installations with more than one megawatt of installed capacity was not complete. For the first time we also used selected information from the Alaska Department of Environmental Conservation's AIRTOOLS database of stationary facilities with air emission permits to help identify industrial producers. This information allowed better identification of industrial facilities, especially if they are energy self-generators. As a result, we believe these tables contain more complete information than previous editions.

In addition to the AIRTOOLS database, we attempted to fill in the blanks for the largest producers with interviews, but we undoubtedly missed a few industrial and military producers. In many parts of the state there is no utility electricity available and any activity requiring electricity must self generate. The number of such small installations is quite large and it would be a very expensive task to try to identify and contact each one individually. Consequently the industrial and military tables in this report only include the largest producers, and although

they account for the vast majority of non-utility electricity capacity and generation, they probably underestimate the true totals.

The data are presented using the same regional definitions as in past reports, but since some utilities have operations that span more than a single region, their combined operations characteristics are also reported. In addition we present a breakdown of operations between the Railbelt utilities, the Power Cost Equalization utilities, and all other. Information is also presented by the regions used in the AEA Energy Pathway publication and by census areas. Map illustrating these regions are in Appendix C. In addition to being included in the final published report, the data tables are also available on the ISER website (<http://www.iser.uaa.alaska.edu/Publications/AlaskaEnergyStatistics2011.pdf>) and the AEA website (<http://www.akenergyauthority.org/>).

In conjunction with the preparation of this annual report, we developed a set of Excel files containing all the information reported by Alaska electricity generators to the Energy Information Administration. These master files, including documentation and instructions for developing the data sets in future years, are available to users by contacting either the Alaska Energy Authority or the Institute of Social and Economic Research.

New in this report is a section on renewable energy and changes to geographic regions in which the data are presented. We also included an expanded glossary of terms.

The new section added to the 2003 report that describes the production and consumption of energy, Alaska Energy Balance, was updated.

It is important to note, that this publication is meant to serve as general reference and broad overview of electric power and other energy in the state. Because data comes from various sources and imperfections of the source data, the reader may find inconsistencies across different tables. Data in different tables may include different cases, or may be guided by slightly different concept definitions depending on the source. However, the authors of this report feel that the data presented provide a reasonable and valuable overview of electric power and energy across Alaska.

Summary and Highlights

The purpose of this report is to present electric power and energy reference data for Alaska; it is not intended to provide detailed analysis of energy production, consumption or uses. Nevertheless, this section highlights information that may be of particular interest to the reader.

Scope of Report

The Alaska Energy Authority contracted with the Institute of Social and Economic Research at the University of Alaska Anchorage to prepare this report, which primarily presents 2008 data on electricity in Alaska, including summary and detailed tables showing:

- Installed capacity by:
 - type of utility,
 - prime mover
 - and plant
- Fuel
 - use
 - cost
 - CO₂ emissions
- Net generation:
 - type of utility
 - prime mover
 - and fuel type
- Utility
 - sales
 - revenue
 - customers
 - average annual electricity use
 - average annual electricity price

The report also includes information on:

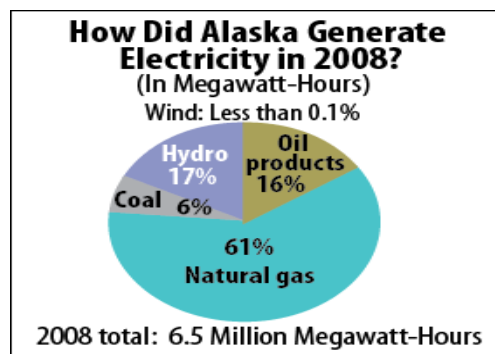
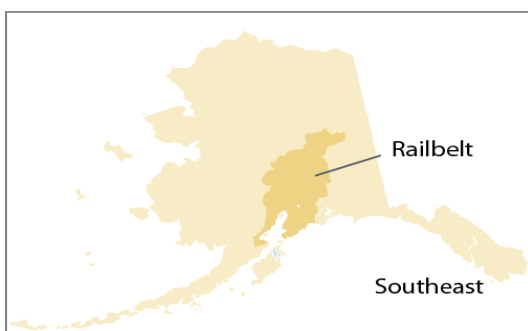
- Changes in electric utility statistics over time, as far back as the early 1960s when possible
- The contribution of hydropower, wind, and other renewable energy sources to generating electricity (and in a few cases also space heat)

A final section of the report provides an overall picture of Alaska energy: how much energy (oil, natural gas, coal, hydroelectric, wind, and biomass) was produced in the state in 2008; how much was consumed; and how it was used (transportation, commercial, industrial, and residential uses).

Report Highlights

Electricity Generation and Cost

- As of 2008, Alaska had about 2,155 megawatts of utility installed capacity and that year it generated over 6.5 million megawatt-hours.
- Natural gas generated about 61% of electricity in Alaska in 2008, oil products 16%, hydroelectric 17%, coal 6%, and wind only about 0.1%. But that statewide picture varies sharply by region.
- The Railbelt region has most of the state's population and uses most (about 80%) of the electricity. Natural gas generates most of the electricity for the Railbelt, but it also has some hydroelectricity.

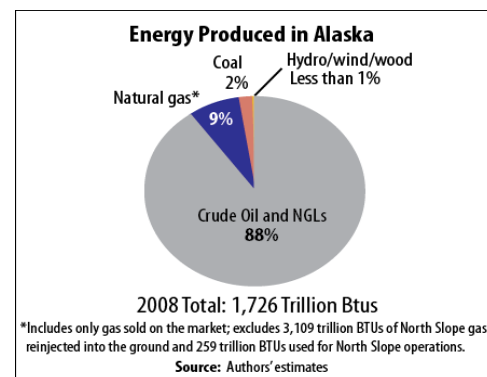
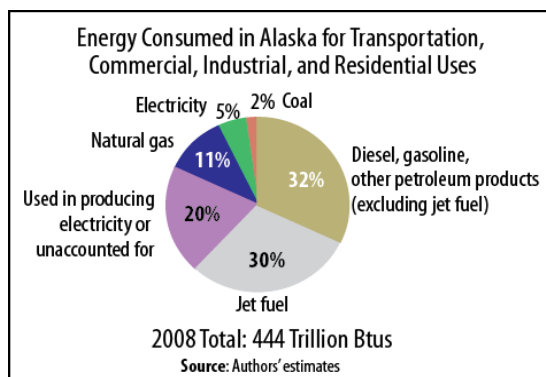


- Many (but not all) communities in Southeast Alaska get electricity from hydroelectric facilities; some rely on diesel.
- Rural communities in western and interior Alaska rely mostly on diesel to generate electricity, but wind power is being added in a growing number of rural places, financed largely by the state's Renewable Energy Fund. About 80% of wind-power capacity has been added just since 2008, and so isn't reflected in 2008 figures.
- Wood generates both heat and electricity in community-level thermal facilities in about ten communities, mostly in Southeast.
- The average annual residential use of electricity statewide in 2008 was about 7,700 kilowatt-hours—but that ranged from around 2,500 kilowatt-hours in places where electricity is most expensive to more than 12,000 where it is cheapest. The national average annual use is about 11,000 kilowatt-hours.

Communities in Southeast Alaska that rely primarily on hydroelectric power to generate electricity have the lowest rates (as little as 10 cents per kilowatt-hour in 2008). Residents of Anchorage and other places in Southcentral Alaska that rely mostly on natural gas for generation paid around 15 cents per kilowatt hour in 2008. Alaskans in small remote rural places that rely on diesel have the most expensive electricity (from roughly 50 cents to \$1 per kilowatt hour in 2008). The state subsidizes part of electricity costs in most of those communities, through the Power Cost Equalization program, but electric bills remain much higher in remote rural areas than in urban places.

Energy Produced and Consumed

- About 90% of the energy Alaska produced in 2008—as measured in energy-equivalent units—was crude oil. About 8% was natural gas,¹ 2% coal, and less than 0.5% wind and hydropower.
- Total energy produced in Alaska in 2008 was almost 2,000 trillion Btus.
- About 85% of the oil and a third of the coal produced in Alaska is exported, but most the natural gas is used in-state.
- An estimated 444 trillion Btus of energy were consumed in Alaska in 2008, but nearly a third of that was in jet fuel—most of which is consumed not by Alaskans but by national and international passenger and cargo carriers flying into and out of Alaska's largest airport
- Another third of the energy used in Alaska in 2008 was in diesel, gasoline, and other petroleum products; 11% natural gas; 5% electricity; and 2% coal.
- Around 10% of the energy consumed in 2008 was used producing electricity—generating electricity in fact uses more energy than it produces in electricity. A final 10% of consumption was natural gas and coal produced in Alaska, but we weren't able to trace how it was consumed.



¹ That figure for natural gas produced does not include large quantities of natural gas that are extracted along with oil on the North Slope but are reinjected into the ground to increase oil production.

Changes in Energy Use and Prices

The table below shows per capita use of energy, by type, in Alaska in 1960 (or in 1975, if earlier data are not available) and 2008. Keep in mind that the population of Alaska tripled during that time, growing from 226,000 to 682,000. The figures may reflect not only shifts in the amounts of energy used per resident, but also whether the supply of specific energy types kept pace with a growing population. For example, although hydropower still generates only a small share of electricity in Alaska, per capita use of hydroelectricity increased even as the population grew—indicating that construction of hydropower facilities kept up with population growth.

The biggest change was the huge increase in per capita use of natural gas. It was only after 1960 that natural gas from Cook Inlet became available in Southcentral Alaska, and today that gas is used to generate electricity for Anchorage and the Railbelt south of the Alaska Range. Jet fuel use in Alaska also increased sharply, as the number of flights into and out of the state increased. Per capita consumption of diesel and gasoline was also up sharply—but use of electricity actually declined, possibly reflecting increased energy efficiency.

The second table shows changing energy prices since 1970, taking into account the effects of inflation. The real (inflation-adjusted) price of almost all energy types is up, but of particular importance for rural Alaskans is the near quadrupling of diesel prices. The real price of electricity actually dropped nearly 15 percent, possibly because natural gas and to a much smaller extent hydropower replaced some of the diesel previously used to generate electricity.

Alaska Per Capita Annual Energy Use, 1960 and 2008

Category	1960	2008	Percentage Change
Population	226,000	681,977	202%
Natural Gas (Mcf)	9	491	5,504%
Coal (Short Tons)	2	1	-32%
Distillate Fuel (Gallons)	490	793	62%
Jet Fuel (Gallons)	348	1,467	321%
Motor Gasoline (Gallons)	308	410	33%
Other Petroleum Products (Gallons)	344	339	-1%
Electricity from Hydro (kWh) 1975	1,553	1,719	11%
Electricity from all sources (kWh) 1975	10,009	9,555	-5%

Change in Energy Prices, 2008 Dollars

Energy Type	1970		2010	Percentage Change
	Nominal \$	2008 \$	2008\$	
Electricity (per kWh)	0.03	\$0.17	\$0.15	-14%
Natural Gas (per Mcf)	0.69	\$3.82	\$6.88	80%
Distillate Fuel (per gallon)	0.16	\$0.89	\$3.91	341%
Jet Fuel (per gallon)	0.10	\$0.55	\$3.03	455%
Motor Gasoline (per gallon)	0.40	\$2.21	\$3.65	65%

ELECTRIC POWER STATISTICS

Electric Utilities Summary Tables

Table 1a. Installed Capacity (KW), 2008
By Major Geographic Regions

Region	Non PCE	PCE ⁽¹⁾	Total	Percent of Total
Arctic Northwest	22,207	83,197	105,404	5%
South Central	1,194,130	16,731	1,210,861	56%
South East	364,840	46,490	411,330	19%
South West	1,737	84,725	86,462	4%
Yukon	305,382	35,800	341,182	16%
Total	1,888,296	266,943	2,155,239	100%

By AEA Energy Regions

AEA Energy Regions	Non PCE	PCE ⁽¹⁾	Total	Percent of Total
Aleutians		24,245	24,245	1%
Bering Straits		34,312	34,312	2%
Bristol Bay	237	26,911	27,148	1%
Copper River/Chugach	34,900	14,005	48,905	2%
Kodiak	53,430	2,726	56,156	3%
Lower Yukon-Kuskokwim	1,500	48,432	49,932	2%
North Slope	20,300	18,700	39,000	2%
Northwest Arctic	1,907	30,185	32,092	1%
Railbelt	1,410,000		1,410,000	65%
Southeast	364,840	46,490	411,330	19%
Yukon-Koyukuk/Upper Tanana	1,182	20,937	22,119	1%
Total	1,888,296	266,943	2,155,239	100%

(1)PCE and Non-PCE categories are based on utility status and not customers.

Highlights

- Railbelt hydroelectric installed capacity is 13% of the Railbelt total
- Hydroelectric installed capacity is 20% of the statewide total
- Railbelt total installed capacity is 65% of the statewide total

Railbelt Hydroelectric: 185 MW

Railbelt Total: 1,410 MW

Alaska Hydroelectric: 440 MW

Alaska Total: 2,155 MW

Table 1b. Net Generation (MWh), 2008**By Major Geographic Regions**

Region	Non-PCE	PCE	Total	Percent of Total
Arctic Northwest	50,410	124,595	175,005	3%
South Central	4,486,658	28,118	4,514,776	69%
South East	641,318	32,961	674,279	10%
South West	2,140	176,453	178,593	3%
Yukon	916,668	57,967	974,635	15%
Total	6,097,194	420,094	6,517,288	100%

By AEA Energy Regions

Region	Non-PCE	PCE	Total	Percent of Total
Aleutians		51,757	51,757	1%
Bering Straits		60,511	60,511	1%
Bristol Bay	556	54,023	54,579	1%
Copper River/Chugach	79,675	27,263	106,938	2%
Kodiak	142,178	1,660	143,838	2%
Lower Yukon-Kuskokwim	1,584	91,590	93,175	1%
North Slope	47,412	29,913	77,325	1%
Northwest Arctic	2,998	34,171	37,169	1%
Railbelt	5,180,388		5,180,388	79%
Southeast	641,318	32,961	674,279	10%
Yukon-Koyukuk/Upper Tanana	1,085	36,244	37,329	1%
Total	6,097,194	420,094	6,517,288	100%

(1)PCE and Non-PCE categories are based on utility status and not customers.

Highlights

- Railbelt hydroelectric net generation is 7% of the Railbelt total
- Hydroelectric net generation is 17% of the statewide total
- Railbelt total net generation is 79% of the statewide total

Railbelt Hydroelectric: 361,000 MWh

Railbelt Total: 5,180,000 MWh

Alaska Hydroelectric: 1,133,000 MWh

Alaska Total: 6,517,000 MWh

Table 1c. Sales (MWh), 2008

By Major Geographic Region

Region	Non-PCE	PCE	Total	Percent of Total
Arctic Northwest	135,497	30,701	166,198	3%
South Central	3,834,289	5,845	3,840,134	61%
South East	713,009	24,897	737,907	12%
South West	126,860	44,889	171,749	3%
Yukon	1,369,388	20,213	1,389,601	22%
Total	6,179,043	126,545	6,305,589	100%

By AEA Energy Region

Region	Non-PCE	PCE	Total	Percent of Total
Aleutians	44,588	8,108	52,696	1%
Bering Straits	39,988	17,536	57,523	1%
Bristol Bay	37,369	14,046	51,415	1%
Copper River/Chugach	19,908	5,416	25,324	0%
Kodiak	137,395	780	138,175	2%
Lower Yukon-Kuskokwim	56,628	30,686	87,314	1%
North Slope	73,941		73,941	1%
Northwest Arctic	21,568	13,165	34,733	1%
Railbelt	5,012,256		5,012,256	79%
Southeast	713,009	24,897	737,907	12%
Yukon-Koyukuk/Upper Tanana	22,393	11,911	34,304	1%
Total	6,179,043	126,545	6,305,589	100%

Table 1c. Revenue (\$000), 2008

By Major Geographic Region

Region	Non-PCE	PCE	Total	Percent of Total
Arctic Northwest	37,938	13,485	51,424	5%
South Central	467,294	2,303	469,597	50%
South East	91,153	8,433	99,586	11%
South West	60,084	21,694	81,777	9%
Yukon	230,293	10,559	240,852	26%
Total	886,761	56,473	943,235	100%

By AEA Energy Region

Region	Non-PCE	PCE	Total	Percent of Total
Aleutians	21,057	3,846	24,903	3%
Bering Straits	15,253	7,148	22,400	2%
Bristol Bay	16,024	6,010	22,033	2%
Copper River/Chugach	7,829	2,183	10,011	1%
Kodiak	25,051	352	25,403	3%
Lower Yukon-Kuskokwim	28,957	15,924	44,882	5%
North Slope	12,158		12,158	1%
Northwest Arctic	10,528	6,338	16,865	2%
Railbelt	647,115		647,115	69%
Southeast	91,153	8,433	99,586	11%
Yukon-Koyukuk/Upper Tanana	11,637	6,241	17,878	2%
Total	886,761	56,473	943,235	100%

Table 1c. Customers (Accounts), 2008

Table 1c. Customers (Accounts)

By Major Geographic Region

Region	Non-PCE	PCE	Total	Percent of Total
Arctic Northwest	5,061	5,326	10,387	3%
South Central	204,381	1,134	205,515	64%
South East	35,431	5,110	40,541	13%
South West	4,864	9,145	14,009	4%
Yukon	45,126	4,980	50,106	16%
Total	294,863	25,695	320,558	100%

By AEA's Energy Region

Region	Non-PCE	PCE	Total	Percent of Total
Aleutians	882	1,722	2,604	1%
Bering Straits	902	3,350	4,252	1%
Bristol Bay	1,715	2,784	4,499	1%
Copper River/Chugach	743	1,012	1,755	1%
Kodiak	5,925	230	6,155	2%
Lower Yukon-Kuskokwim	2,558	6,319	8,876	3%
North Slope	3,693		3,693	1%
Northwest Arctic	466	1,976	2,442	1%
Railbelt	241,290		241,290	75%
Southeast	35,431	5,110	40,541	13%
Yukon-Koyukuk/Upper Tanana	1,259	3,191	4,450	1%
Total	294,863	25,695	320,558	100%

PART 2. ELECTRIC UTILITY TABLES

INSTALLED CAPACITY

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	PEAK		Source	PCE Community ⁽²⁾
										Summer	Winter		
State			2,155,239	847,800	55,500	421,346	388,700	439,719	2,174				
Arctic Northwest			105,404	17,300		86,574			1,530				
South Central			1,210,861	519,100		79,011	388,700	224,050					
South East			411,330	70,900		126,490		213,940					
South West			86,462			84,089		1,729	644				
Yukon			341,182	240,500	55,500	45,182							
Arctic Northwest			105,404	17,300		86,574			1,530				
Alaska Village Electric Coop		Ambler	982			982						AEA	Yes
Alaska Village Electric Coop		Brevig Mission	654			654						AEA	Yes
Alaska Village Electric Coop		Elim	1,105			1,105						AEA	Yes
Alaska Village Electric Coop		Gambell*	1,120			1,120						AEA	Yes
Alaska Village Electric Coop		Kiana	1,163			1,163						AEA	Yes
Alaska Village Electric Coop		Kivalina	1,132			1,132						AEA	Yes
Alaska Village Electric Coop		Koyuk	1,098			1,098						AEA	Yes

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	PEAK		Source	PCE Community ⁽²⁾
										Summer	Winter		
Alaska Village Electric Coop		Noatak	1,210			1,210						AEA	Yes
Alaska Village Electric Coop		Noorvik	1,000			1,000						AEA	Yes
Alaska Village Electric Coop		Saint Michael	1,020			1,020						AEA	Yes
Alaska Village Electric Coop		Savoonga	1,560			1,560						AEA	Yes
Alaska Village Electric Coop		Selawik*	1,907			1,647			260			AEA	No
Alaska Village Electric Coop		Shaktoolik	632			632						AEA	Yes
Alaska Village Electric Coop		Shishmaref	1,560			1,560						AEA	Yes
Alaska Village Electric Coop		Shungnak	1,248			1,248						AEA	Yes
Alaska Village Electric Coop		Stebbins	871			871						AEA	Yes
Alaska Village Electric Coop		Teller										AEA	Yes
Alaska Village Electric Coop		Wales*	702			572			130			AEA	Yes
Barrow Utils & Elect Coop Inc		Barrow	20,300	17,300		3,000				20,300	20,500	EIA	No
Buckland, City of		Buckland	1,125			1,125						AEA	Yes
Diomedee Joint Utilities		Diomedee	460			460						AEA	Yes
Golovin Power Utilities		Golovin	570			570						AEA	Yes

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

										PEAK			
Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	Summer	Winter	Source	PCE Community ⁽²⁾
Ipnatchiaq Electric Company		Deering	585			585						AEA	Yes
Kotzebue Electric Association		Kotzebue*	21,740			20,600			1,140			AEA	Yes
Nome Joint Utility System		Nome*	20,500			20,500				20,400	20,400	EIA	Yes
North Slope Borough		Anaktuvuk Pass	2,800			2,800						AEA	Yes
North Slope Borough		Atkasuk	3,200			3,200						AEA	Yes
North Slope Borough		Kaktovik	2,600			2,600						AEA	Yes
North Slope Borough		Nuigsut	2,600			2,600						AEA	Yes
North Slope Borough		Point Hope	2,700			2,700						AEA	Yes
North Slope Borough		Point Lay	1,800			1,800						AEA	Yes
North Slope Borough		Wainwright	3,000			3,000						AEA	Yes
Unalakleet Valley Electric		Unalakleet*	2,000			2,000				2,000	2,000	AEA	Yes
White Mountain, City of		White Mountain	460			460						AEA	Yes
South Central			1,210,861	519,100		79,011	388,700	224,050					
Akhiok, City of		Akhiok	600			600						AEA	Yes
Alaska Village Electric Coop		Old Harbor	706			706						AEA	Yes
Alutiiq Power Company		Karluk	130			130						AEA	
Anchorage Municipal Light & Power	Anchorage 1	Anchorage	103,100	100,900		2,200				91,000	101,100	EIA	No

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	PEAK		Source	PCE Community ⁽²⁾
										Summer	Winter		
Anchorage Municipal Light & Power	George M Sullivan Generation Plant 2	Anchorage	266,300	92,600			173,700			219,900	243,200	EIA	No
Chenega Ira Council		Chenega Bay	170			170						AEA	Yes
Chitina Electric Inc		Chitina	310			310						AEA	Yes
Chugach Electric Assn Inc	International	Anchorage	46,300	46,300						41,900	46,700	EIA	No
Chugach Electric Assn Inc	Bernice Lake	Nikiski	76,700	76,700						62,400	67,500	EIA	No
Chugach Electric Assn Inc	Beluga	Railbelt	374,400	159,400			215,000			344,400	385,000	EIA	No
Copper Valley Elec Assn Inc	Glennallen	Glennallen	7,900			7,900				7,700	7,700	EIA	No
Copper Valley Elec Assn Inc	Solomon Gulch	Valdez	12,000					12,000		12,000	12,000	EIA	No
Copper Valley Elec Assn Inc	Valdez	Valdez	9,700			9,700				8,600	8,600	EIA	No
Copper Valley Elec Assn Inc	Valdez Cogen	Valdez	5,300	5,300						5,100	5,300	EIA	No
Cordova Electric	Orca	Cordova	7,100			7,100				7,100	7,100	EIA	Yes
Cordova Electric	Power Creek	Cordova	6,000					6,000				EIA	Yes
Homer Electric Assn Inc	Nikiski Co-Generation	Nikiski	37,900	37,900						37,900	42,000	EIA	No
Homer Electric Assn Inc	Seldovia	Seldovia	2,400			2,400				2,400	2,400	EIA	No
Kodiak Electric Assn Inc	Nymans Plant	Kodiak	10,000			10,000				9,800	9,900	EIA	No

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

										PEAK			
Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	Summer	Winter	Source	PCE Community ⁽²⁾
Kodiak Electric Assn Inc	Terror Lake	Kodiak	20,000					20,000		20,000	20,000	AEA	No
Kodiak Electric Assn Inc	Kodiak	Kodiak*	22,300			22,300				22,300	22,300	EIA	No
Kodiak Electric Assn Inc	Port Lions	Port Lions	1,000			1,000				900	900	EIA	No
Larsen Bay Utility Company		Larsen Bay	975			475		500				AEA	Yes
Ouzinkie, City of		Ouzinkie	445			295		150				AEA	Yes
Seward, City of		Seward	13,300			13,300				12,300	12,700	EIA	No
Shared** Chugach Electric Assn Inc	Bradley Lake	Railbelt	126,000					126,000		126,000	126,000	EIA	No
	Cooper Lake	Railbelt	15,000					15,000		19,200	19,200	EIA	No
Shared** Tatitlek Village Ira Council	Eklutna Hydro Project	Railbelt	44,400					44,400		44,400	44,400	EIA	No
		Tatitlek	425			425						AEA	Yes
South East			411,330	70,900		126,490		213,940					
Alaska Electric Light & Power Co	Annex Creek	Juneau	3,600					3,600		3,600	3,600	AEA	No
Alaska Electric Light & Power Co	Auke Bay	Juneau	36,200	33,700		2,500				28,300	28,300	EIA	No
Alaska Electric Light & Power Co	Gold Creek	Juneau	9,700			8,100		1,600		9,700	9,700	EIA	No
Alaska Electric Light & Power Co	Lake Dorothy	Juneau	14,300					14,300				AEA	No

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

										PEAK			
Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	Summer	Winter	Source	PCE Community ⁽²⁾
Alaska Electric Light & Power Co	Lemon Creek	Juneau	61,700	37,200		24,500				57,500	57,500	EIA	No
Alaska Electric Light & Power Co	Salmon Creek	Juneau	6,700					6,700		5,200	5,200	AEA	No
Alaska Electric Light & Power Co	Snettisham	Juneau	78,200					78,200		78,000	78,000	EIA	No
Alaska Power & Telephone Company		Craig	4,400			4,400						AEA	Yes
Alaska Power & Telephone Company		Haines	6,450			6,200		250				AEA	Yes
Alaska Power & Telephone Company		Hydaburg	1,000			1,000						AEA	Yes
Alaska Power & Telephone Company		Klawock	4,500					4,500				AEA	Yes
Alaska Power & Telephone Company		Naukati Bay	1,300					1,300				AEA	Yes
Alaska Power & Telephone Company	Black Bear Lake	Prince of Wales	4,500					4,500				EIA	No
Alaska Power & Telephone Company	South Fork	Prince of Wales	2,000					2,000				EIA	No
Alaska Power & Telephone Company	Goat Lake	Skagway	4,000					4,000				EIA	Yes
Alaska Power & Telephone Company	Kasidaya Creek	Skagway	3,000					3,000				EIA	Yes
Alaska Power & Telephone Company	Skagway	Skagway	3,400			2,400		1,000				EIA	Yes
Alaska Power & Telephone Company		Thorne Bay	1,000			1,000						AEA	Yes

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

										PEAK			
Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	Summer	Winter	Source	PCE Community ⁽²⁾
Elfin Cove Utility		Elfin Cove	347			347						AEA	Yes
Gustavus Electric Co		Gustavus	1,642			842		800				AEA	Yes
Inside Passage Electric		Angoon	1,585			1,585						AEA	Yes
Inside Passage Electric	Chilkat Valley	Haines	1,100			1,100						AEA	Yes
Inside Passage Electric		Haines	550					550				AEA	Yes
Inside Passage Electric		Hoonah	2,400			2,400						AEA	Yes
Inside Passage Electric		Kake	2,500			2,500						AEA	Yes
Inside Passage Electric		Klukwan	675			675						AEA	Yes
Ketchikan Public Utilities	Beaver Falls	Ketchikan	5,400					5,400		5,400	4,600	EIA	No
Ketchikan Public Utilities	Ketchikan	Ketchikan	4,200					4,200		4,200	3,300	EIA	No
Ketchikan Public Utilities	S W Bailey	Ketchikan	25,900			25,900				23,000	23,000	EIA	No
Ketchikan Public Utilities	Silvis	Ketchikan	2,100					2,100		2,100	2,100	EIA	No
Metlakatla Power & Light	Centennial	Metlakatla	3,300			3,300				3,300	3,300	EIA	No
Metlakatla Power & Light	Chester Lake	Metlakatla	1,000					1,000		1,000	1,000	EIA	No

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

										PEAK			
Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	Summer	Winter	Source	PCE Community ⁽²⁾
Metlakatla Power & Light	Purple Lake	Metlakatla	3,900					3,900		3,900	3,900	EIA	No
Pelican Utility		Pelican	2,700			2,000		700		2,600	2,600	EIA	Yes
Petersburg, City of		Petersburg	12,300			10,700		1,600		10,400	10,400	EIA	#N/A
Sitka, City & Borough of	Blue Lake	Sitka	7,540					7,540		7,540	7,540	EIA	No
Sitka, City & Borough of	Green Lake	Sitka	18,600					18,600		18,600	18,600	EIA	No
Sitka, City & Borough of	Jarvis Street	Sitka	12,100			12,100				11,600	11,600	EIA	No
South East Alaska Power Agency	Swan Lake	Ketchikan	22,600					22,600		22,400	22,400	AEA	No
South East Alaska Power Agency	Tyee Lake	Ketchikan	20,000					20,000				AEA	No
Tenakee Springs, City of		Tenakee Springs	241			241						AEA	Yes
Wrangell, City of		Wrangell	9,000			9,000				9,000	9,000	EIA	No
Yakutat Power Inc		Yakutat	3,700			3,700				3,700	3,700	EIA	Yes
South West			86,462			84,089		1,729	644				
Akiachak Native Community		Akiachak	1,500			1,500						AEA	No
Akiak City Council		Akiak	450			450						AEA	Yes
Akutan, City of		Akutan	325			220		105				AEA	Yes
Alaska Village Electric Coop		Eek	579			579						AEA	Yes
Alaska Village Electric Coop		Goodnews Bay	661			661						AEA	Yes

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	PEAK		Source	PCE Community ⁽²⁾
										Summer	Winter		
Alaska Village Electric Coop		Kasigluk*	1,924			1,624			300			AEA	Yes
Alaska Village Electric Coop		Lower Kalskag	1,098			1,098						AEA	Yes
Alaska Village Electric Coop		Mekoryuk*	664			664						AEA	Yes
Alaska Village Electric Coop		New Stuyahok	956			956						AEA	Yes
Alaska Village Electric Coop		Nightmute	484			484						AEA	Yes
Alaska Village Electric Coop		Nunapitchuk	350			350						AEA	Yes
Alaska Village Electric Coop		Quinhagak	1,061			1,061						AEA	Yes
Alaska Village Electric Coop		Togiak	1,673			1,673						AEA	Yes
Alaska Village Electric Coop		Toksook Bay*	1,918			1,618			300			AEA	Yes
Alaska Village Electric Coop		Tununak	344			344						AEA	Yes
Aniak Light & Power		Aniak	1,100			1,100				800	900	EIA	Yes
Atka, City of		Atka	260			260						AEA	Yes
Atmautluak Tribal Utilities		Atmautluak	395			395						AEA	Yes
Bethel Utilities Corporation		Bethel	12,600			12,600				12,600	12,600	EIA	Yes
Chignik Lagoon Power Utility		Chignik	393			393						AEA	Yes

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	PEAK		Source	PCE Community ⁽²⁾
										Summer	Winter		
Chignik Lake Electric Utility		Chignik Lagoon	237			237						AEA	No
Chignik, City of		Chignik Lake	525			525						AEA	Yes
Egegik Light & Power Co		Egegik	300			300						AEA	Yes
Ekwo, City of		Ekwo	630			630						AEA	Yes
False Pass, City of		False Pass	450			450						AEA	Yes
G & K Inc		Cold Bay	2,620			2,620						AEA	Yes
Igiugig Electric Company		Igiugig	235			235						AEA	Yes
I-N-N Electric Coop Inc	Newhalen /Tazimina	Iliamna, Newhalen, Nondalton	2,324			1,500		824				EIA	#N/A
King Cove, City of		King Cove	2,600			1,800		800		2,300	1,800	EIA	Yes
Kipnuk Light Plant		Kipnuk	635			635						AEA	Yes
Kokhanok Village Council		Kokhanok	495			495						AEA	Yes
Kwethluk Incorporated		Kwethluk	1,050			1,050						AEA	Yes
Kwigillingok Power Company		Kwigillingok	585			585						AEA	Yes
Levelock Electrical Coop		Levelock	234			234						AEA	Yes
Lime Village Electric Utility		Lime Village	56			56						AEA	Yes
Manokotak Power Company		Manokotak	830			830						AEA	Yes

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	PEAK		Source	PCE Community ⁽²⁾
										Summer	Winter		
Mcgrath Light & Power Co		McGrath	2,200			2,200				2,100	2,200	EIA	Yes
Middle Kuskokwim Electric		Chuathbaluk	175			175						AEA	Yes
Middle Kuskokwim Electric		Crooked Creek	223			223						AEA	Yes
Middle Kuskokwim Electric		Red Devil	138			138						AEA	Yes
Middle Kuskokwim Electric		Sleetmute	323			323						AEA	Yes
Middle Kuskokwim Electric		Stony River	138			138						AEA	Yes
Naknek Electric		Naknek	9,900			9,900				9,900	9,900	EIA	Yes
Napakiaq Ircinraq		Napakiaq	250			250						AEA	Yes
Napaskiak Electric Utility		Napaskiak	585			585						AEA	Yes
Naterkaq Light Plant		Chefomak	1,050			1,050						AEA	Yes
Native Village of Perryville		Perryville*	499			475			24			AEA	Yes
Nelson Lagoon Electrical Coop		Nelson Lagoon	290			290						AEA	Yes
New Koliganek Village Council		Koliganek	340			340						AEA	Yes
Nikolai, City of		Nikolai	240			240						AEA	Yes
Nushagak Electric		Dillingham	6,100			6,100				6,100	6,100	EIA	Yes

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	PEAK		Source	PCE Community ⁽²⁾
										Summer	Winter		
Pedro Bay Village Council		Pedro Bay	260			260						AEA	Yes
Pilot Point Electric Utility		Pilot Point	255			235			20			AEA	Yes
Platinum, City of		Platinum	125			125						AEA	Yes
Port Heiden Utilities		Port Heiden*	430			430						AEA	Yes
Puvurnaq Power Company		Kongiganak	755			755						AEA	Yes
Saint George, City of		Saint George	850			850						AEA	Yes
St. Paul Municipal Electric		Saint Paul*	3,500			3,500						AEA	Yes
Takotna Community Assoc Inc		Takotna	216			216						AEA	Yes
Tanalian Electric Cooperative		Port Alsworth	437			437						AEA	Yes
TDX Adak Generating LLC		Adak	2,200			2,200						AEA	Yes
TDX Corporation		Sand Point	3,350			3,350						AEA	Yes
Tuluksak Traditional Tuntutuliak Community		Tuluksak	490			490						AEA	Yes
Tuntutuliak Community		Tuntutuliak	577			577						AEA	Yes
Twin Hills Village Council		Twin Hills	95			95						AEA	Yes
Umnak Power Company		Nikolski*	200			200						AEA	Yes
Unalaska, City of		Dutch Harbor	6,500			6,500				5,500	5,500	EIA	Yes

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

										PEAK			
Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	Summer	Winter	Source	PCE Community ⁽²⁾
Unalaska, City of		Unalaska	1,100			1,100				800	800	EIA	Yes
Ungusraq Power Company		Newtok	130			130						AEA	Yes
Yukon			341,182	240,500	55,500	45,182							
Alaska Power & Telephone Company		Northway	1,000			1,000						AEA	Yes
Alaska Power & Telephone Company		Tok	4,800			4,800						AEA	Yes
Alaska Village Electric Coop		Alakanuk	1,199			1,199						AEA	Yes
Alaska Village Electric Coop		Anvik	495			495						AEA	Yes
Alaska Village Electric Coop		Chevak*	1,800			1,800						AEA	Yes
Alaska Village Electric Coop		Emmonak	2,307			2,307						AEA	Yes
Alaska Village Electric Coop		Grayling	546			546						AEA	Yes
Alaska Village Electric Coop		Holy Cross	632			632						AEA	No
Alaska Village Electric Coop		Hooper Bay*	2,531			2,531						AEA	Yes
Alaska Village Electric Coop		Kaltag	800			800						AEA	Yes
Alaska Village Electric Coop		Marshall	815			815						AEA	Yes
Alaska Village Electric Coop		Minto	573			573						AEA	Yes

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

										PEAK			
Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	Summer	Winter	Source	PCE Community ⁽²⁾
Alaska Village Electric Coop		Mountain Village	2,212			2,212						AEA	Yes
Alaska Village Electric Coop		Nulato	897			897						AEA	Yes
Alaska Village Electric Coop		Pilot Station	1,210			1,210						AEA	Yes
Alaska Village Electric Coop		Russian Mission	541			541						AEA	Yes
Alaska Village Electric Coop		Saint Marys	2,018			2,018						AEA	Yes
Alaska Village Electric Coop		Scammon Bay	1,212			1,212						AEA	Yes
Alaska Village Electric Coop		Shageluk	385			385						AEA	Yes
Aurora Energy LLC	Aurora Energy LLC Chena	Fairbanks	27,500		27,500					32,400	32,400	EIA	No
Beaver Joint Utilities		Beaver	250			250						AEA	Yes
Central Electric Inc		Central	500			500						AEA	Yes
Chalkyitsik Village Council		Chalkyitsik	290			290						AEA	No
Circle Electric Utility		Circle	500			500						AEA	Yes
Galena, City of		Galena	2,800			2,800				2,600	2,600	EIA	Yes
Golden Valley Elec Assn Inc	Delta Power	Delta Junction*	23,100	23,100						23,100	29,300	EIA	No
Golden Valley Elec Assn Inc	Fairbanks	Fairbanks	42,200	36,800		5,400				37,900	41,600	EIA	No
Golden Valley Elec Assn Inc	Healy	Healy*	30,800		28,000	2,800				27,800	27,800	EIA	No

Table 2.1a Installed Capacity (kW) by Prime Mover⁽¹⁾ by Plant, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine	PEAK		Source	PCE Community ⁽²⁾
										Summer	Winter		
Golden Valley Elec Assn Inc	North Pole	North Pole	180,600	180,600						137,000	182,000	EIA	No
Gwitchyaa Zhee Utilities Co		Fort Yukon	1,700			1,700				1,100	1,700	EIA	Yes
Hughes Power & Light		Hughes	230			230						AEA	Yes
Kotlik Joint Utility		Kotlik	1,390			1,390						AEA	Yes
Koyukuk, City of		Koyukuk	205			205						AEA	Yes
Manley Utilities		Manley Hot Springs	340			340						AEA	Yes
Nunam Iqua Electric Company		Nunam Iqua	284			284						AEA	Yes
Ruby, City of Stevens Village Ira Council		Ruby	600			600						AEA	Yes
Tanana Power Company Inc.		Stevens Village	260			260						AEA	No
Venetie Village Electric		Tanana	1,260			1,260						AEA	Yes
		Venetie	400			400						AEA	Yes

(*) In many communities, wind turbines were installed after 2008. For details such as utility names, installed capacity, turbine type and other wind data please refer to the Renewable Energy Section.

(**) For details such as utility names and respective share, please refer to the Renewable Energy Section, Hydroelectric.

(1) Gas Turbine (combustion-turbine) produces electricity by passing hot gases produced from combustion of natural gas or distillate oil through the turbine. In a steam turbine (fossil-fueled) the fuel is burned in a boiler to produce steam; the steam turns the turbine to produce electricity. Internal Combustion (diesel) generators have cylinders in which the combustion of fuel takes place and the engine provides mechanical energy to drive the generator to produce electricity. Combined Cycle generators produce electricity from otherwise lost waste heat exiting from one or more gas (combustion) turbines. The exiting heat is routed to a conventional boiler or to a heat recovery steam generator for utilization by a steam turbine in the production of electricity. This process increases the efficiency of the electric generating unit. Hydroelectric power is produced from flowing water that spins a turbine connected to a generator. Wind turbine produces electricity by converting kinetic energy into mechanical energy to drive electric power generators.

(2) PCE Community Status: Yes, if community included in FY2008 and/or FY2009 of the Alaska Energy Authority PCE Statistical Report.

Table 2.1b Installed Capacity by Prime Mover Percent Distribution, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine %	Steam Turbine %	Reciprocating Internal Combustion %	Combined Cycle %	Hydro electric %	Wind Turbine %
State			2,155,239	39	3	20	18	20	0.1
Arctic Northwest			105,404	16		83			0.8
South Central			1,210,861	43		7	32	19	
South East			411,330	17		31		52	
South West			86,462			97		2	1
Yukon			341,182	70	16	13			0.3
Arctic Northwest			105,404	16		83			1
Alaska Village Electric Coop		Ambler	982			100			
Alaska Village Electric Coop		Brevig Mission	654			100			
Alaska Village Electric Coop		Elim	1,105			100			
Alaska Village Electric Coop		Gambell*	1,120			100			
Alaska Village Electric Coop		Kiana	1,163			100			
Alaska Village Electric Coop		Kivalina	1,132			100			
Alaska Village Electric Coop		Koyuk	1,098			100			
Alaska Village Electric Coop		Noatak	1,210			100			
Alaska Village Electric Coop		Noorvik	1,000			100			
Alaska Village Electric Coop		Saint Michael	1,020			100			
Alaska Village Electric Coop		Savoonga	1,560			100			
Alaska Village Electric Coop		Selawik*	1,907			86			14
Alaska Village Electric Coop		Shaktolik	632			100			
Alaska Village Electric Coop		Shishmaref	1,560			100			
Alaska Village Electric Coop		Shungnak	1,248			100			
Alaska Village Electric Coop		Stebbins	871			100			
Alaska Village Electric Coop		Teller							
Alaska Village Electric Coop		Wales*	702			81			19

Table 2.1b Installed Capacity by Prime Mover Percent Distribution, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine %	Steam Turbine %	Reciprocating Internal Combustion %	Combined Cycle %	Hydro electric %	Wind Turbine %
Barrow Utils & Elect Coop Inc		Barrow	20,300	85		15			
Buckland, City of		Buckland	1,125			100			
Diomedea Joint Utilities		Diomedea	460			100			
Golovin Power Utilities		Golovin	570			100			
Ipitchiaq Electric Company		Deering	585			100			
Kotzebue Electric Association		Kotzebue*	21,740			98			2
Nome Joint Utility System		Nome*	20,500			100			
North Slope Borough		Anaktuvuk Pass	2,800			100			
North Slope Borough		Atkasuk	3,200			100			
North Slope Borough		Kaktovik	2,600			100			
North Slope Borough		Nuiqsut	2,600			100			
North Slope Borough		Point Hope	2,700			100			
North Slope Borough		Point Lay	1,800			100			
North Slope Borough		Wainwright	3,000			100			
Unalakleet Valley Electric		Unalakleet*	2,000			100			
White Mountain, City of		White Mountain	460			100			
South Central			1,210,861	43		7	32	19	
Akhiok, City of		Akhiok	600			100			
Alaska Village Electric Coop		Old Harbor	706			100			
Alutiiq Power Company		Karluk	130			100			
Anchorage Municipal Light & Power	Anchorage 1	Anchorage	103,100	98		2			
Anchorage Municipal Light & Power	George M Sullivan Generation Plant 2	Anchorage	266,300	35			65		
Chenega Ira Council		Chenega Bay	170			100			
Chitina Electric Inc		Chitina	310			100			
Chugach Electric Assn Inc	International	Anchorage	46,300	100					
Chugach Electric Assn Inc	Bernice Lake	Nikiski	76,700	100					
Chugach Electric Assn Inc	Beluga	Railbelt	374,400	43			58		
Copper Valley Elec Assn Inc	Glennallen	Glennallen	7,900			100			

Table 2.1b Installed Capacity by Prime Mover Percent Distribution, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine %	Steam Turbine %	Reciprocating Internal Combustion %	Combined Cycle %	Hydro electric %	Wind Turbine %
Copper Valley Elec Assn Inc	Solomon Gulch	Valdez	12,000					100	
Copper Valley Elec Assn Inc	Valdez	Valdez	9,700			100			
Copper Valley Elec Assn Inc	Valdez Cogen	Valdez	5,300	100					
Cordova Electric	Orca	Cordova	7,100			100			
Cordova Electric	Power Creek	Cordova	6,000					100	
Homer Electric Assn Inc	Nikiski Co-Generation	Nikiski	37,900	100					
Homer Electric Assn Inc	Seldovia	Seldovia	2,400			100			
Kodiak Electric Assn Inc	Nymans Plant	Kodiak	10,000			100			
Kodiak Electric Assn Inc	Terror Lake	Kodiak	20,000					100	
Kodiak Electric Assn Inc	Kodiak	Kodiak*	22,300			100			
Kodiak Electric Assn Inc	Port Lions	Port Lions	1,000			100			
Larsen Bay Utility Company		Larsen Bay	975			49		51	
Ouzinkie, City of		Ouzinkie	445			66		34	
Seward, City of		Seward	13,300			100			
Shared**	Bradley Lake	Railbelt	126,000					100	
Chugach Electric Assn Inc	Cooper Lake	Railbelt	15,000					100	
Shared**	Eklutna Hydro Project	Railbelt	44,400					100	
Tatitlek Village Ira Council		Tatitlek	425			100			
South East			411,330	17		31		52	
Alaska Electric Light & Power Co	Annex Creek	Juneau	3,600					100	
Alaska Electric Light & Power Co	Auke Bay	Juneau	36,200	93		7			
Alaska Electric Light & Power Co	Gold Creek	Juneau	9,700			84		16	
Alaska Electric Light & Power Co	Lake Dorothy	Juneau	14,300					100	
Alaska Electric Light & Power Co	Lemon Creek	Juneau	61,700	60		40			
Alaska Electric Light & Power Co	Salmon Creek	Juneau	6,700					100	
Alaska Electric Light & Power Co	Snettisham	Juneau	78,200					100	

Table 2.1b Installed Capacity by Prime Mover Percent Distribution, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine %	Steam Turbine %	Reciprocating Internal Combustion %	Combined Cycle %	Hydro electric %	Wind Turbine %
Alaska Power & Telephone Company		Craig	4,400			100			
Alaska Power & Telephone Company		Haines	6,450			96		4	
Alaska Power & Telephone Company		Hydaburg	1,000			100			
Alaska Power & Telephone Company		Klawock	4,500					100	
Alaska Power & Telephone Company		Naukatli Bay	1,300					100	
Alaska Power & Telephone Company	Black Bear Lake	Prince of Wales	4,500					100	
Alaska Power & Telephone Company	South Fork	Prince of Wales	2,000					100	
Alaska Power & Telephone Company	Goat Lake	Skagway	4,000					100	
Alaska Power & Telephone Company	Kasidaya Creek	Skagway	3,000					100	
Alaska Power & Telephone Company	Skagway	Skagway	3,400			71		29	
Alaska Power & Telephone Company		Thorne Bay	1,000			100			
Elfin Cove Utility Commission		Elfin Cove	347			100			
Gustavus Electric Co		Gustavus	1,642			51		49	
Inside Passage Electric		Angeon	1,585			100			
Inside Passage Electric	Chilkat Valley	Haines	1,100			100			
Inside Passage Electric		Haines	550					100	
Inside Passage Electric		Hoonah	2,400			100			
Inside Passage Electric		Kake	2,500			100			
Inside Passage Electric		Klukwan	675			100			
Ketchikan Public Utilities	Beaver Falls	Ketchikan	5,400					100	
Ketchikan Public Utilities	Ketchikan	Ketchikan	4,200					100	
Ketchikan Public Utilities	S W Bailey	Ketchikan	25,900			100			
Ketchikan Public Utilities	Silvis	Ketchikan	2,100					100	
Metlakatla Power & Light	Centennial	Metlakatla	3,300			100			
Metlakatla Power & Light	Chester Lake	Metlakatla	1,000					100	
Metlakatla Power & Light	Purple Lake	Metlakatla	3,900					100	

Table 2.1b Installed Capacity by Prime Mover Percent Distribution, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine %	Steam Turbine %	Reciprocating Internal Combustion %	Combined Cycle %	Hydro electric %	Wind Turbine %
Pelican Utility		Pelican	2,700			74		26	
Petersburg, City of		Petersburg	12,300			87		13	
Sitka, City & Borough of	Blue Lake	Sitka	7,540					100	
Sitka, City & Borough of	Green Lake	Sitka	18,600					100	
Sitka, City & Borough of	Jarvis Street	Sitka	12,100			100			
South East Alaska Power Agency	Swan Lake	Ketchikan	22,600					100	
South East Alaska Power Agency	Tyee Lake	Ketchikan	20,000					100	
Tenakee Springs, City of		Tenakee Springs	241			100			
Wrangell, City of		Wrangell	9,000			100			
Yakutat Power Inc		Yakutat	3,700			100			
South West			86,462			97		2	1
Akiachak Native Community		Akiachak	1,500			100			
Akiak City Council		Akiak	450			100			
Akutan, City of		Akutan	325			68		32	
Alaska Village Electric Coop		Eek	579			100			
Alaska Village Electric Coop		Goodnews Bay	661			100			
Alaska Village Electric Coop		Kasigluk*	1,924			84			16
Alaska Village Electric Coop		Lower Kalskag	1,098			100			
Alaska Village Electric Coop		Mekoryuk*	664			100			
Alaska Village Electric Coop		New Stuyahok	956			100			
Alaska Village Electric Coop		Nightmute	484			100			
Alaska Village Electric Coop		Nunapitchuk	350			100			
Alaska Village Electric Coop		Quinhagak	1,061			100			
Alaska Village Electric Coop		Togiak	1,673			100			
Alaska Village Electric Coop		Toksook Bay*	1,918			80			20
Alaska Village Electric Coop		Tununak	344			100			

Table 2.1b Installed Capacity by Prime Mover Percent Distribution, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine %	Steam Turbine %	Reciprocating Internal Combustion %	Combined Cycle %	Hydro electric %	Wind Turbine %
Aniak Light & Power		Aniak	1,100			100			
Atka, City of		Atka	260			100			
Atmautluak Tribal Utilities		Atmautluak	395			100			
Bethel Utilities Corporation		Bethel	12,600			100			
Chignik Lagoon Power Utility		Chignik	393			100			
Chignik Lake Electric Utility		Chignik Lagoon	237			100			
Chignik, City of		Chignik Lake	525			100			
Egegik Light & Power Co		Egegik	300			100			
Ekwok, City of		Ekwok	630			100			
False Pass, City of		False Pass	450			100			
G & K Inc		Cold Bay	2,620			100			
Igiugig Electric Company		Igiugig	235			100			
I-N-N Electric Coop Inc	Newhalen/Tazimina	Iliamna, Newhalen, Nondalton	2,324			65		35	
King Cove, City of		King Cove	2,600			69		31	
Kipnuk Light Plant		Kipnuk	635			100			
Kokhanok Village Council		Kokhanok	495			100			
Kwethluk Incorporated		Kwethluk	1,050			100			
Kwigillingok Power Company		Kwigillingok	585			100			
Levelock Electrical Coop		Levelock	234			100			
Lime Village Electric Utility		Lime Village	56			100			
Manokotak Power Company		Manokotak	830			100			
Mcgrath Light & Power Co		McGrath	2,200			100			
Middle Kuskokwim Electric		Chuathbaluk	175			100			
Middle Kuskokwim Electric		Crooked Creek	223			100			
Middle Kuskokwim Electric		Red Devil	138			100			

Table 2.1b Installed Capacity by Prime Mover Percent Distribution, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine %	Steam Turbine %	Reciprocating Internal Combustion %	Combined Cycle %	Hydro electric %	Wind Turbine %
Middle Kuskokwim Electric		Sleetmute	323			100			
Middle Kuskokwim Electric		Stony River	138			100			
Naknek Electric		Naknek	9,900			100			
Napakiak Incinraq		Napakiak	250			100			
Napaskiak Electric Utility		Napaskiak	585			100			
Naterkaq Light Plant		Chefornak	1,050			100			
Native Village of Perryville		Perryville*	499			95			5
Nelson Lagoon Electrical Coop		Nelson Lagoon	290			100			
New Koliganek Village Council		Koliganek	340			100			
Nikolai, City of		Nikolai	240			100			
Nushagak Electric		Dillingham	6,100			100			
Pedro Bay Village Council		Pedro Bay	260			100			
Pilot Point Electric Utility		Pilot Point	255			91			9
Platinum, City of		Platinum	125			100			
Port Heiden Utilities		Port Heiden*	430			100			
Puvumag Power Company		Kongiganak	755			100			
Saint George, City of		Saint George	850			100			
St. Paul Municipal Electric		Saint Paul*	3,500			100			
Takotna Community Assoc Inc		Takotna	216			100			
Tanalian Electric Cooperative		Port Alsworth	437			100			
TDX Adak Generating LLC		Adak	2,200			100			
TDX Corporation		Sand Point	3,350			100			
Tuluksak Traditional		Tuluksak	490			100			
Tuntutuliak Community		Tuntutuliak	577			100			
Twin Hills Village Council		Twin Hills	95			100			
Umnak Power Company		Nikolski*	200			100			

Table 2.1b Installed Capacity by Prime Mover Percent Distribution, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine %	Steam Turbine %	Reciprocating Internal Combustion %	Combined Cycle %	Hydro electric %	Wind Turbine %
Unalaska, City of		Dutch Harbor	6,500			100			
Unalaska, City of		Unalaska	1,100			100			
Ungusraq Power Company		Newtok	130			100			
Yukon			341,182	70	16	13			0.3
Alaska Power & Telephone Company		Northway	1,000			100			
Alaska Power & Telephone Company		Tok	4,800			100			
Alaska Village Electric Coop		Alakanuk	1,199			100			
Alaska Village Electric Coop		Anvik	495			100			
Alaska Village Electric Coop		Chevak*	1,800			100			
Alaska Village Electric Coop		Emmonak	2,307			100			
Alaska Village Electric Coop		Grayling	546			100			
Alaska Village Electric Coop		Holy Cross	632			100			
Alaska Village Electric Coop		Hooper Bay*	2,531			100			
Alaska Village Electric Coop		Kaltag	800			100			
Alaska Village Electric Coop		Marshall	815			100			
Alaska Village Electric Coop		Minto	573			100			
Alaska Village Electric Coop		Mountain Village	2,212			100			
Alaska Village Electric Coop		Nulato	897			100			
Alaska Village Electric Coop		Pilot Station	1,210			100			
Alaska Village Electric Coop		Russian Mission	541			100			
Alaska Village Electric Coop		Saint Marys	2,018			100			
Alaska Village Electric Coop		Scammon Bay	1,212			100			
Alaska Village Electric Coop		Shageluk	385			100			
Aurora Energy LLC	Aurora Energy LLC Chena	Fairbanks	27,500		100				
Beaver Joint Utilities		Beaver	250			100			
Central Electric Inc		Central	500			100			

Table 2.1b Installed Capacity by Prime Mover Percent Distribution, 2008

Utility Name	Plant Name	Community	Total Capacity kW	Gas Turbine %	Steam Turbine %	Reciprocating Internal Combustion %	Combined Cycle %	Hydro electric %	Wind Turbine %
Chalkyitsik Village Council		Chalkyitsik	290			100			
Circle Electric Utility		Circle	500			100			
Galena, City of		Galena	2,800			100			
Golden Valley Elec Assn Inc	Delta Power	Delta Junction*	23,100	96					4
Golden Valley Elec Assn Inc	Fairbanks	Fairbanks	42,200	87		13			
Golden Valley Elec Assn Inc	Healy	Healy*	30,800		91	9			0.04
Golden Valley Elec Assn Inc	North Pole	North Pole	180,600	100					
Gwitchyaa Zhee Utilities Co		Fort Yukon	1,700			100			
Hughes Power & Light		Hughes	230			100			
Kotlik Joint Utility		Kotlik	1,390			100			
Koyukuk, City of		Koyukuk	205			100			
Manley Utilities		Manley Hot Springs	340			100			
Nunam Iqua Electric Company		Nunam Iqua	284			100			
Ruby, City of		Ruby	600			100			
Stevens Village Ira Council		Stevens Village	260			100			
Tanana Power Company Inc.		Tanana	1,260			100			
Venetie Village Electric		Venetie	400			100			

(*) In many communities, wind turbines were installed after 2008. For details such as utility names, installed capacity, turbine type and other wind data please refer to the Renewable Energy Section.

(**) For details such as utility names and respective share, please refer to the Renewable Energy Section, Hydroelectric.

(1) Gas Turbine (combustion-turbine) produces electricity by passing hot gases produced from combustion of natural gas or distillate oil through the turbine. In a steam turbine (fossil-fueled) the fuel is burned in a boiler to produce steam; the steam turns the turbine to produce electricity. Internal Combustion (diesel) generators have cylinders in which the combustion of fuel takes place and the engine provides mechanical energy to drive the generator to produce electricity. Combined Cycle generators produce electricity from otherwise lost waste heat exiting from one or more gas (combustion) turbines. The exiting heat is routed to a conventional boiler or to a heat recovery steam generator for utilization by a steam turbine in the production of electricity. This process increases the efficiency of the electric generating unit. Hydroelectric power is produced from flowing water that spins a turbine connected to a generator. Wind turbine produces electricity by converting kinetic energy into mechanical energy to drive electric power generators.

(2) PCE Community Status: Yes, if community included in FY2008 and/or FY2009 of the Alaska Energy Authority PCE Statistical Report.

DISPOSITION

Table 2.2a Utility Net Generation and Total Disposition* (MWh), 2008

Utility Name	Community	Net Generation + Purchased Utilities = Total Disposition			Sum of Values=Total Disposition					Source ⁽²⁾
		Net Generation (MWh)	Purchased Utilities	Total Disposition	Sales to Consumers	Sales for Resale	Furnished without Payment	Used by Facility	Unaccountable / Energy Loss ⁽¹⁾	
State		5,707,064	3,743,833	9,450,897	6,325,340	2,651,114	3,817	38,687	431,939	
Arctic Northwest		190,302	895	191,197	180,446		1,030	2,278	7,443	
South Central		4,122,826	2,653,949	6,776,775	3,839,521	2,636,707	25	10,582	289,940	
South East		377,053	356,410	733,463	687,309	103	2,033	11,862	32,156	
South West		160,870	6,857	167,727	152,520	692	723	2,215	11,577	
Yukon		753,980	681,713	1,435,693	1,346,484	187	7	9,235	79,780	
Alaska Power & Telephone Company	Multiple	29,417	44,009	73,425	51,006	13,425		919	8,076	PCE
Alaska Village Electric Coop	Multiple	72,617		72,617	68,055			1,595	2,967	EIA
Arctic Northwest		190,302	895	191,197	180,446		1,030	2,278	7,443	
Barrow Utils & Elect Coop Inc	Barrow	47,742		47,742	46,238				1,504	EIA
Buckland City of	Buckland	1,496		1,496	1,309		6	9	173	PCE
Diomedea Joint Utilities	Diomedea	442		442	374		19	14	35	PCE
Ignatchiaq Electric Company	Deering	683		683	655		4		24	EIA
Kotzebue Electric Association	Kotzebue	21,905		21,905	20,380			619	906	EIA
Nome Joint Utility System	Nome	41,881		41,881	38,015				3,866	EIA
North Slope Borough	Multiple	30,909		30,909	27,703		1,001	1,599	606	EIA
TDX North Slope Generation Co	Multiple	41,000		41,000	41,000					EIA
Unalakleet Valley Electric Coop	Unalakleet	4,244		4,244	4,012			37	195	EIA
White Mountain, City of	White Mountain		895	895	760				135	EIA

Table 2.2a Utility Net Generation and Total Disposition* (MWh), 2008

Utility Name	Community	Net Generation + Purchased Utilities = Total Disposition			Sum of Values=Total Disposition					Source ⁽²⁾
		Net Generation (MWh)	Purchased Utilities	Total Disposition	Sales to Consumers	Sales for Resale	Furnished without Payment	Used by Facility	Unaccountable / Energy Loss ⁽¹⁾	
South Central		4,122,826	2,653,949	6,776,775	3,839,521	2,636,707	25	10,582	289,940	
Alaska Electric & Energy Coop	Homer		554,939	554,939		554,939				EIA
Alaska Energy Authority ⁽³⁾	Multiple	287,562		287,562		287,562				EIA
Alutiiq Power Company	Karluk	264		264	227		6	3	28	PCE
Anchorage Municipal Light & Power	Anchorage	1,284,995	80,651	1,365,646	1,118,752	214,333			32,561	EIA
Chitina Electric Inc	Chitina	432		432	394		6	12	20	EIA
Chugach Electric Assn Inc	Multiple	2,467,183	491,702	2,958,885	1,205,832	1,579,873		4,834	168,346	EIA
Copper Valley Elec Assn Inc	Multiple	32,238	45,069	77,307	72,659			229	4,419	EIA
Cordova Electric	Cordova	25,361		25,361	23,482			297	1,582	EIA
Homer Electric Assn Inc	Multiple	24	554,939	554,963	522,027			2,196	30,740	EIA
Kodiak Electric Assn Inc	Kodiak	21,407	119,643	141,050	136,272			395	4,383	EIA
Larsen Bay Utility Company	Larsen Bay	1,195		1,195	687				508	EIA
Matanuska Electric Assn	Multiple		743,273	743,273	700,924			2,590	39,759	EIA
Ouzinkie, City of	Ouzinkie	663		663	551				112	EIA
Seward, City of	Seward	1,055	63,733	64,788	57,339				7,449	EIA
Tatitlek Electric Utility	Tatitlek	447		447	375		13	26	33	EIA
South East		377,053	356,410	733,463	687,309	103	2,033	11,862	32,156	
Alaska Electric Light & Power	Juneau	105,881	226,855	332,736	310,176			3,291	19,269	EIA
Elfin Cove Utility Commission	Elfin Cove	377		377	334			43		EIA
Gustavus Electric Co	Gustavus	1,803		1,803	1,565				238	EIA
Inside Passage Electric	Multiple	9,610	1,914	11,524	10,258			440	826	EIA
Ketchikan Public Utilities	Ketchikan	99,723	65,843	165,566	159,340		1,965	130	4,131	EIA
Metlakatla Power & Light	Metlakatla	17,294		17,294	15,686		68	220	1,320	EIA

Table 2.2a Utility Net Generation and Total Disposition* (MWh), 2008

Utility Name	Community	Net Generation + Purchased Utilities = Total Disposition			Sum of Values=Total Disposition					Source ⁽²⁾
		Net Generation (MWh)	Purchased Utilities	Total Disposition	Sales to Consumers	Sales for Resale	Furnished without Payment	Used by Facility	Unaccountable / Energy Loss ⁽¹⁾	
Pelican Utility	Pelican	1,870		1,870	1,495	103		36	236	EIA
Petersburg, City of	Petersburg	14,122	35,988	50,110	44,509			1,189	4,412	EIA
Sitka, City & Borough of	Sitka	118,600		118,600	112,906			5,694		EIA
Tenakee Springs, City of	Tenakee Springs	373		373	322				51	EIA
Wrangell, City of	Wrangell	620	25,810	26,430	24,633			630	1,167	EIA
Yakutat Power Inc	Yakutat	6,780		6,780	6,085			189	506	EIA
South West		160,870	6,857	167,727	152,520	692	723	2,215	11,577	
Akiachak Native Community	Akiachak		1,761	1,761	1,561		100		100	EIA
Akutan, City	Akutan	653		653	405			118	130	EIA
Aniak Light & Power	Aniak	2,553		2,553	2,100			76	377	EIA
Atka, City of	Atka	357		357	223		1	34	99	EIA
Atmautluak Tribal Utilities	Atmautluak	680		680	412		108	150	10	EIA
Bethel Utilities Corporation	Bethel	42,342		42,342	38,838	692		619	2,193	EIA
Chignik Lagoon Power Utility	Chignik Lagoon	556		556	517			18	21	PCE
Chignik, City of	Chignik	601		601	534			9	58	PCE
Egegik Light & Power Co	Egegik	771		771	657		15	8	91	EIA
G & K Inc	Cold Bay	2,923		2,923	2,605			148	170	EIA
Igiugig Electric Company	Igiugig	245		245	202			16	27	EIA
I-N-N Electric Coop Inc	Iliamna, Newhalen, Nondalton	3,158		3,158	2,791				367	EIA
King Cove, City of	King Cove	4,511		4,511	3,811			253	447	EIA
Kipnuk Light Plant	Kipnuk	1,618		1,618	1,453		21	23	121	PCE

Table 2.2a Utility Net Generation and Total Disposition* (MWh), 2008

Utility Name	Community	Net Generation + Purchased Utilities = Total Disposition			Sum of Values=Total Disposition					Source ⁽²⁾
		Net Generation (MWh)	Purchased Utilities	Total Disposition	Sales to Consumers	Sales for Resale	Furnished without Payment	Used by Facility	Unaccountable / Energy Loss ⁽¹⁾	
Kokhanok Village Council	Kokhanok	477		477	404		3	20	50	EIA
Kwethluk Incorporated	Kwethluk	1,414		1,414	1,001		155		258	EIA
Kwigillingok Power Company	Kwigillingok	892		892	766		19		107	EIA
Levelock Electrical Coop	Levelock	189		189	330		14	38	-193	PCE
Lime Village Electric Utility	Lime Village	81		81	62			2	17	PCE
Manokotak Power Company	Manokotak	1,355		1,355	1,062		64		229	EIA
Mcgrath Light & Power	McGrath	2,741		2,741	2,522			120	99	EIA
Middle Kuskokwim Electric	Multiple	1,053		1,053	932				121	EIA
Naknek Electric	Naknek	22,128		22,128	20,490				1,638	EIA
Napakiaq Ircinraq	Napakiaq		602	602	530		8		64	EIA
Napaskiak Electric Utility	Napaskiak	961		961	730		46	38	148	PCE
Naterkaq Light Plant	Chefomak	1,174		1,174	955		34	24	161	EIA
Native Village of Perryville	Perryville	584		584	298		78		208	EIA
Nelson Lagoon Electric Coop Inc	Nelson Lagoon	444		444	353			57	34	EIA
New Koliganek Village Council	Koliganek	233		233	525			11	-303	PCE
Nushagak Electric Coop	Dillingham	18,000		18,000	17,000				1,000	EIA
Pedro Bay Village Council	Pedro Bay	245		245	226				19	EIA
Pilot Point Electric Utility	Pilot Point	419		419	373			9	37	PCE
Puvumag Power Company	Kongiganak	1,065		1,065	930		14		121	PCE
St. Paul Municipal Electric	Saint Paul	5,537		5,537	4,743				794	EIA
Takotna Community Assoc Inc	Takotna	252		252	228			25	-2	PCE
Tanalai Electric Cooperative	Port Alsworth	607		607	548			19	40	PCE
TDX Corporation	Sand Point	4,344		4,344	4,037			160	146	PCE
Tuluksak Traditional	Tuluksak	637		637	434		9	39	156	PCE

Table 2.2a Utility Net Generation and Total Disposition* (MWh), 2008

Utility Name	Community	Net Generation + Purchased Utilities = Total Disposition			Sum of Values=Total Disposition					Source ⁽²⁾
		Net Generation (MWh)	Purchased Utilities	Total Disposition	Sales to Consumers	Sales for Resale	Furnished without Payment	Used by Facility	Unaccountable / Energy Loss ⁽¹⁾	
Tuntutuliak Community	Tuntutuliak	969		969	744		25	25	175	EIA
Twin Hills Village Council	Twin Hills	276		276	203		7		66	PCE
Umnak Power Company	Nikolski	304		304	246			151	-94	PCE
Unalaska, City of	Unalaska	33,152	4,494	37,646	35,552				2,094	EIA
Ungusraq Power Company	Newtok	370		370	190		2	4	174	PCE
Yukon		753,980	681,713	1,435,693	1,346,484	187	7	9,235	79,780	
Birch Creek Village Elec Util	Birch Creek	85		85	80				5	EIA
Central Electric Inc	Central	408		408	408					EIA
Circle Electric Utility	Circle	331		331	290			16	26	PCE
Galena, City	Galena	7,641		7,641	4,247			657	2,737	EIA
Gwitchyaa Zhee Utilities Co	Fort Yukon	2,308		2,308	2,308					EIA
Golden Valley Elec Assn Inc	Multiple	738,173	681,713	1,419,886	1,334,723	187		8,449	76,527	EIA
Hughes Power & Light	Hughes	243		243	226				17	EIA
Kotlik Joint Utility	Kotlik	1,876		1,876	1,610			32	234	PCE
Manley Utilities	Manley Hot Springs	305		305	243			12	49	PCE
Nunam Iqua Electric Company	Nunam Iqua	876		876	827		4	19	25	PCE
Paxson Inc & Lodge	Paxson	180		180	180					EIA
Stevens Village Ira Council	Stevens Village	290		290	250		3	9	29	PCE
Tanana Power Company Inc.	Tanana	1,264		1,264	1,092			41	131	EIA

*Note that this table includes the utility net wheeling of power for other utilities. For example, Chugach purchased power includes power passed on to Homer Electric, Mat-Su Electric, Seward and others.

(1) Energy Loss includes the total amount of electricity lost from transmission, distribution, and/or unaccounted for.

(2) Some PCE utilities only reported partial data including Koliganek (4 months), Nikolski (6 months). Other utilities reported inconsistent PCE data most notably communities with negative estimated energy losses.

(3) Generation from Bradley Lake. Reporting to EIA is based on ownership of the generating plant or who operates the plant depending on the survey form. The Alaska Energy Authority owns Bradley Lake; however it is operated by Homer Electric Association.

NET GENERATION

Table 2.3a Net Generation (MWh) by Prime Mover*, 2008

Utility Name	Plant Name	Community	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine ⁽³⁾	Net Generation MWh ⁽²⁾	Source
State			2,163,985	397,681	480,065	2,339,914	1,133,396	2,246	6,517,288	
Arctic Northwest			47,808		126,214			983	175,005	
South Central			1,578,745		51,284	2,339,914	544,833		4,514,776	
South East			19,521		71,894		582,864		674,279	
South West					171,630		5,699	1,264	178,593	
Yukon			517,911	397,681	59,043				974,635	
Arctic Northwest			47,808		126,214			983	175,005	
Alaska Village Electric Coop		Ambler			1,259				1,259	PCE
Alaska Village Electric Coop		Brevig Mission			1,025				1,025	PCE
Alaska Village Electric Coop		Elim			1,093				1,093	PCE
Alaska Village Electric Coop		Gambell			1,902				1,902	PCE
Alaska Village Electric Coop		Kiana			1,627				1,627	EIA
Alaska Village Electric Coop		Kivalina			1,234				1,234	PCE
Alaska Village Electric Coop		Koyuk			1,360				1,360	PCE
Alaska Village Electric Coop		Noatak			1,965				1,965	PCE
Alaska Village Electric Coop		Noorvik			1,983				1,983	EIA
Alaska Village Electric Coop		Saint Michael			1,859				1,859	PCE
Alaska Village Electric Coop		Savoonga			2,060				2,060	PCE
Alaska Village Electric Coop		Selawik			2,890			108	2,998	EIA
Alaska Village Electric Coop		Shaktolik			836				836	PCE
Alaska Village Electric Coop		Shishmaref			1,606				1,606	EIA
Alaska Village Electric Coop		Shungnak			1,478				1,478	PCE

Table 2.3a Net Generation (MWh) by Prime Mover*, 2008

Utility Name	Plant Name	Community	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine ⁽³⁾	Net Generation MWh ⁽²⁾	Source
Alaska Village Electric Coop		Stebbins			1,403				1,403	PCE
Alaska Village Electric Coop		Teller			876				876	PCE
Alaska Village Electric Coop		Wales			584				584	PCE
Barrow Utils & Elect Coop Inc		Barrow	47,412						47,412	EIA
City of Buckland C/O		Buckland			1,496				1,496	PCE
City of White Mountain		White Mountain			791				791	PCE
Diomedes Joint Utilities		Diomedes			442				442	PCE
Golovin Power Utilities		Golovin			381				381	PCE
Ipitchiaq Electric Company		Deering			700				700	PCE
Kobuk Valley Electric Company		Kobuk								PCE
Kotzebue Electric Association		Kotzebue			21,554			875	22,429	EIA
Nome Joint Utility Systems	Snake River	Nome			40,049				40,049	EIA
North Slope Borough		Anaktuvuk Pass			3,185				3,185	PCE
North Slope Borough		Atkasuk			2,948				2,948	PCE
North Slope Borough		Kaktovik			5,074				5,074	PCE
North Slope Borough		Nuiqsut	396		4,319				4,715	PCE
North Slope Borough		Point Hope			5,091				5,091	PCE
North Slope Borough		Point Lay			3,221				3,221	PCE
North Slope Borough		Wainwright			5,679				5,679	PCE
Unalakleet Valley Electric		Unalakleet			4,244				4,244	EIA
South Central			1,578,745		51,284	2,339,914	544,833		4,514,776	
Alaska Village Electric Coop		Old Harbor			713				713	PCE
Alutiiq Power Company		Karluk			264				264	PCE
Anchorage Municipal Light & Power	Anchorage 1	Anchorage	73,547		7				73,554	EIA
Anchorage Municipal Light & Power	Eklutna Hydro Project	Anchorage					57,824		57,824	EIA

Table 2.3a Net Generation (MWh) by Prime Mover*, 2008

Utility Name	Plant Name	Community	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine ⁽³⁾	Net Generation MWh ⁽²⁾	Source
Anchorage Municipal Light & Power	George M Sullivan Generation Plant 2	Anchorage	100,299			1,049,168**			1,149,467	EIA
Chenega Ira Council		Chenega Bay			183				183	PCE
Chitina Electric Inc		Chitina			432				432	PCE
Chugach Electric Assn Inc	Cooper Lake	Anchorage					6,663		6,663	EIA
Chugach Electric Assn Inc	International	Anchorage	-324						-324	EIA
Chugach Electric Assn Inc	Bernice Lake	Nikiski	93,631						93,631	EIA
Chugach Electric Assn Inc	Beluga	Railbelt	967,801			1,290,746***			2,258,547	EIA
City of Ouzinkie		Ouzinkie			199		78		277	PCE
Cordova Electric	Orca	Cordova			10,726				10,726	EIA
Cordova Electric	Power Creek	Cordova					14,670		14,670	EIA
Copper Valley Elec Assn Inc	Glennallen	Glennallen			6,748				6,748	EIA
Copper Valley Elec Assn Inc	Solomon Gulch	Valdez					47,429		47,429	EIA
Copper Valley Elec Assn Inc	Valdez	Valdez			1,467				1,467	EIA
Copper Valley Elec Assn Inc	Valdez Cogen State-Fuel Level	Valdez	24,031						24,031	EIA
EIA's Alaska Estimated Adjustment ⁽¹⁾	Increment	Railbelt			8,902				8,902	EIA
Homer Electric Assn Inc	Nikiski Co-Generation	Nikiski	319,760						319,760	EIA
Homer Electric Assn Inc	Bradley Lake ⁽⁴⁾	Railbelt					296,759		296,759	EIA
Homer Electric Assn Inc	Seldovia	Seldovia			22				22	EIA
Kodiak Electric Assn Inc	Nymans Plant	Kodiak			5,289				5,289	EIA
Kodiak Electric Assn Inc	Port Lions	Kodiak								EIA
Kodiak Electric Assn Inc	Terror Lake	Kodiak					120,879		120,879	EIA
Kodiak Electric Assn Inc	Kodiak	Kodiak*			15,746				15,746	EIA
Larsen Bay Utility Company		Larsen Bay			139		531		670	PCE

Table 2.3a Net Generation (MWh) by Prime Mover*, 2008

Utility Name	Plant Name	Community	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine ⁽³⁾	Net Generation MWh ⁽²⁾	Source
Tatitlek Village Ira Council		Tatitlek			447				447	PCE
South East			19,521		71,894		582,864		674,279	
Alaska Electric Light & Power Co	Annex Creek	Juneau					28,475		28,475	EIA
Alaska Electric Light & Power Co	Auke Bay	Juneau	14,455		1,137				15,592	EIA
Alaska Electric Light & Power Co	Gold Creek	Juneau			16		4,731		4,747	EIA
Alaska Electric Light & Power Co	Lemon Creek	Juneau	5,066		23,297				28,363	EIA
Alaska Electric Light & Power Co	Salmon Creek 1	Juneau					26,042		26,042	EIA
Alaska Electric Light & Power Co	Snettisham	Juneau					220,640		220,640	EIA
Alaska Power & Telephone Company		Coffman Cove			885				885	PCE
Alaska Power & Telephone Company		Craig			4,657				4,657	PCE
Alaska Power & Telephone Company		Haines			196				196	PCE
Alaska Power & Telephone Company		Hollis								PCE
Alaska Power & Telephone Company		Hydaburg								PCE
Alaska Power & Telephone Company		Klawock								PCE
Alaska Power & Telephone Company		Naukati Bay			497				497	PCE
Alaska Power & Telephone Company		Skagway			2,812		3,322		6,134	PCE
Alaska Power & Telephone Company		Thorne Bay								PCE
Alaska Power & Telephone Company		Whale Pass			270				270	PCE
City of Petersburg		Petersburg			946		13,176		14,122	EIA
City of Tenakee Springs		Tenakee Springs			414				414	PCE
City of Wrangell		Wrangell			621				621	EIA
Elfin Cove Utility Commission		Elfin Cove			377				377	PCE
Gustavus Electric Co		Gustavus			1,803				1,803	PCE
Inside Passage Electric		Angoon			1,814				1,814	EIA
Inside Passage Electric	Chilkat Valley	Haines								EIA

Table 2.3a Net Generation (MWh) by Prime Mover*, 2008

Utility Name	Plant Name	Community	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine ⁽³⁾	Net Generation MWh ⁽²⁾	Source
Inside Passage Electric		Hoonah			5,012				5,012	EIA
Inside Passage Electric		Kake			2,447				2,447	EIA
Inside Passage Electric		Klukwan								PCE
Ketchikan Public Utilities	Beaver Falls	Ketchikan					46,581		46,581	EIA
Ketchikan Public Utilities	Ketchikan	Ketchikan					23,871		23,871	EIA
Ketchikan Public Utilities	S W Bailey	Ketchikan			16,184				16,184	EIA
Ketchikan Public Utilities	Silvis	Ketchikan					13,177		13,177	EIA
Ketchikan Public Utilities	Swan Lake	Ketchikan					67,246		67,246	EIA
Metlakatla Power & Light	Centennial	Metlakatla			264				264	EIA
Metlakatla Power & Light	Chester Lake	Metlakatla					3,802		3,802	EIA
Metlakatla Power & Light	Purple Lake	Metlakatla					13,583		13,583	EIA
Pelican Utility		Pelican			298		1,340		1,638	EIA
Sitka, City & Borough of	Blue Lake	Sitka					55,760		55,760	EIA
Sitka, City & Borough of	Green Lake	Sitka					61,118		61,118	EIA
Sitka, City & Borough of	Jarvis Street	Sitka			1,130				1,130	EIA
Yakutat Power Inc		Yakutat			6,818				6,818	PCE
South West					171,630		5,699	1,264	178,593	
Akiachak Native Community		Akiachak			1,584				1,584	PCE
Akiak City Council		Akiak			1,091				1,091	PCE
Alaska Village Electric Coop		Eek			779				779	PCE
Alaska Village Electric Coop		Goodnews Bay			703				703	PCE
Alaska Village Electric Coop		Kalskag			1,220				1,220	PCE
Alaska Village Electric Coop		Kasigluk			2,192			594	2,786	PCE
Alaska Village Electric Coop		Lower Kalskag								PCE
Alaska Village Electric Coop		Mekoryuk			905				905	PCE

Table 2.3a Net Generation (MWh) by Prime Mover*, 2008

Utility Name	Plant Name	Community	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine ⁽³⁾	Net Generation MWh ⁽²⁾	Source
Alaska Village Electric Coop		New Stuyahok			1,612				1,612	PCE
Alaska Village Electric Coop		Nightmute			220				220	PCE
Alaska Village Electric Coop		Nunapitchuk			0				0	PCE
Alaska Village Electric Coop		Quinhagak			2,019				2,019	PCE
Alaska Village Electric Coop		Togiak			2,591				2,591	EIA
Alaska Village Electric Coop		Toksook Bay			2,285			659	2,944	PCE
Alaska Village Electric Coop		Tununak			16				16	PCE
Aniak Light & Power		Aniak			2,502				2,502	EIA
Atmautluak Tribal Utilities		Atmautluak			680				680	PCE
Bethel Utilities Corporation		Bethel			41,723				41,723	EIA
Chignik Lagoon Power Utility		Chignik Lagoon			556				556	PCE
City of Akutan		Akutan			667				667	PCE
City of Atka		Atka			473				473	PCE
City of Chignik		Chignik			595			6	601	PCE
City of Ekwok		Ekwok								PCE
City of King Cove		King Cove			2,105		2,449		4,554	EIA
City of Nikolai		Nikolai								PCE
City of Platinum		Platinum			179				179	PCE
Egegik Light & Power Co		Egegik			721				721	PCE
G & K Inc		Cold Bay			2,923				2,923	PCE
Igiugig Electric Company		Igiugig			245				245	PCE
I-N-N Electric Coop, Inc	Tazimina	Iliamna, Newhalen, Nondalton			547		3,244		3,791	PCE
Kipnuk Light Plant		Kipnuk			1,618				1,618	PCE
Kokhanok Village Council		Kokhanok			467				467	PCE

Table 2.3a Net Generation (MWh) by Prime Mover*, 2008

Utility Name	Plant Name	Community	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine ⁽³⁾	Net Generation MWh ⁽²⁾	Source
Kwethluk Incorporated		Kwethluk			1,320				1,320	PCE
Kwigilingok Power Company		Kwigilingok			881				881	PCE
Levelock Electrical Coop		Levelock			189				189	PCE
Lime Village Electric Utility		Lime Village			81				81	PCE
Manokotak Power Company		Manokotak			1,353				1,353	PCE
Mcgrath Light & Power		McGrath			2,621				2,621	EIA
Middle Kuskokwim Electric		Chuathbaluk			254				254	PCE
Middle Kuskokwim Electric		Crooked Creek			277				277	PCE
Middle Kuskokwim Electric		Red Devil			146				146	PCE
Middle Kuskokwim Electric		Sleetmute			258				258	PCE
Middle Kuskokwim Electric		Stony River			135				135	PCE
Naknek Electric		Naknek			22,129				22,129	EIA
Napakiak Incinraq		Napakiak								PCE
Napaskiak Electric Utility		Napaskiak			961				961	PCE
Naterkaq Light Plant		Chefomak			1,063				1,063	PCE
Nelson Lagoon Electrical Coop		Nelson Lagoon			444				444	PCE
New Koliganek Village Council		Koliganek			233				233	PCE
Nushagak Electric		Dillingham			18,527				18,527	EIA
Pedro Bay Village Council		Pedro Bay			263				263	PCE
Pilot Point Electric Utility		Pilot Point			408			11	419	PCE
Puvuruaq Power Company		Kongiganak			1,065				1,065	PCE
St. Paul Municipal Electric		Saint Paul			5,537				5,537	PCE
Takotna Community Assoc Inc		Takotna			252				252	PCE
Tanalian Electric Cooperative		Port Alsworth			607				607	PCE
TDX Adak Generating LLC		Adak			380				380	PCE
TDX Corporation		Sand Point			4,344				4,344	PCE
Tuluksak Traditional		Tuluksak			637				637	PCE
Tuntutuliak Community		Tuntutuliak			969				969	PCE

Table 2.3a Net Generation (MWh) by Prime Mover*, 2008

Utility Name	Plant Name	Community	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine ⁽³⁾	Net Generation MWh ⁽²⁾	Source
Twin Hills Village Council		Twin Hills			276				276	PCE
Umnak Power Company		Nikolski			304				304	PCE
Unalaska, City of	Dutch Harbor	Dutch Harbor			29,427				29,427	EIA
Unalaska, City of	Unalaska Power Module	Dutch Harbor			2,704				2,704	EIA
Ungusraq Power Company		Newtok			370				370	PCE
Yukon			517,911	397,681	59,043				974,635	
Alaska Power & Telephone Company		Allakaket			660				660	PCE
Alaska Power & Telephone Company		Bettles			647				647	PCE
Alaska Power & Telephone Company		Chistochina			339				339	PCE
Alaska Power & Telephone Company		Dot Lake								PCE
Alaska Power & Telephone Company		Eagle			748				748	PCE
Alaska Power & Telephone Company		Healy Lake			94				94	PCE
Alaska Power & Telephone Company		Mentasta Lake			324				324	PCE
Alaska Power & Telephone Company		Northway			1,458				1,458	PCE
Alaska Power & Telephone Company		Slana			466				466	PCE
Alaska Power & Telephone Company		Tetlin			78				78	PCE
Alaska Power & Telephone Company		Tok			11,963				11,963	PCE
Alaska Village Electric Coop		Alakanuk			1,865				1,865	PCE
Alaska Village Electric Coop		Anvik			428				428	PCE
Alaska Village Electric Coop		Chevak			2,303				2,303	EIA
Alaska Village Electric Coop		Emmonak			2,915				2,915	EIA
Alaska Village Electric Coop		Grayling			586				586	PCE
Alaska Village Electric Coop		Holy Cross			644				644	PCE
Alaska Village Electric Coop		Hooper Bay			2,755				2,755	EIA
Alaska Village Electric Coop		Huslia			927				927	PCE
Alaska Village Electric Coop		Kaltag			755				755	PCE

Table 2.3a Net Generation (MWh) by Prime Mover*, 2008

Utility Name	Plant Name	Community	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine ⁽³⁾	Net Generation MWh ⁽²⁾	Source
Alaska Village Electric Coop		Marshall			1,273				1,273	PCE
Alaska Village Electric Coop		Minto			635				635	PCE
Alaska Village Electric Coop		Mountain Village			2,662				2,662	EIA
Alaska Village Electric Coop		Nulato			1,070				1,070	PCE
Alaska Village Electric Coop		Pilot Station			1,692				1,692	PCE
Alaska Village Electric Coop		Pitkas Point								PCE
Alaska Village Electric Coop		Russian Mission			867				867	PCE
Alaska Village Electric Coop		Saint Marys			2,971				2,971	EIA
Alaska Village Electric Coop		Scammon Bay			1,736				1,736	PCE
Alaska Village Electric Coop		Shageluk			373				373	PCE
Aurora Energy LLC	Aurora Energy LLC Chena	Fairbanks		177,106					177,106	EIA
Beaver Joint Utilities		Beaver								PCE
Central Electric Inc		Central			460				460	PCE
Chalkyitsik Village Council		Chalkyitsik			151				151	PCE
Circle Electric Utility		Circle			331				331	PCE
City of Galena		Galena			7,164				7,164	PCE
City of Koyukuk		Koyukuk			222				222	PCE
City of Ruby		Ruby								PCE
Golden Valley Elec Assn Inc	Delta Power	Delta Junction	-144						-144	EIA
Golden Valley Elec Assn Inc	Fairbanks	Fairbanks	5,339		-9				5,330	EIA
Golden Valley Elec Assn Inc	Healy	Healy*		220,575					220,575	EIA
Golden Valley Elec Assn Inc	North Pole	North Pole	512,716						512,716	EIA
Gwitchyaa Zhee Co		Fort Yukon			2,556				2,556	EIA
Hughes Power & Light		Hughes			322				322	PCE
Kotlik Joint Utility		Kotlik			1,876				1,876	PCE
Manley Utilities		Manley Hot Springs			305				305	PCE

Table 2.3a Net Generation (MWh) by Prime Mover*, 2008

Utility Name	Plant Name	Community	Gas Turbine	Steam Turbine	Reciprocating Internal Combustion	Combined Cycle	Hydro electric	Wind Turbine ⁽³⁾	Net Generation MWh ⁽²⁾	Source
Nunam Iqua Electric Company		Nunam Iqua			876				876	PCE
Stevens Village Ira Council		Stevens Village			290				290	PCE
Tanana Power Company Inc		Tanana			1,264				1,264	PCE

(1) This is a statistical adjustment made by EIA. Plants that did not respond to EIA's survey or data that could not be verified are estimated. The estimates are rolled-into state/fuel aggregates with a "99999" plant code.

(2) Gross generation minus the parasitic station load (i.e. station use); may be negative if the station service load exceeded the gross electrical generation. This may be the case for stand-by generators. Please note that net generation is not defined as electric power sold to the grid.

(3) In many communities wind turbines were installed after 2008. For details such as utility names, installed capacity, turbine type and other wind data please refer to the Renewable Energy Section.

(4) Generation from Bradley Lake. Reporting to EIA is based on ownership of the generating plant or who operates the plant depending on the survey form. The Alaska Energy Authority owns Bradley Lake; however it is operated by Homer Electric Association.

*Gas Turbine (combustion-turbine) produces electricity by passing hot gases produced from combustion of natural gas or distillate oil through the turbine. Steam turbine (fossil-fueled) the fuel is burned in a boiler to produce steam; the steam turns the turbine to produce electricity. Internal Combustion (diesel) generators have cylinders in which the combustion of fuel takes place and the engine provides mechanical energy to drive the generator to produce electricity. Combined Cycle generators produce electricity from otherwise lost waste heat exiting from one or more gas (combustion) turbines. The exiting heat is routed to a conventional boiler or to a heat recovery steam generator for utilization by a steam turbine in the production of electricity. This process increases the efficiency of the electric generating unit. Hydroelectric power is produced from flowing water that spins a turbine connected to a generator. Wind turbine produces electricity by converting kinetic energy into mechanical energy to drive electric power generators.

**AML&P combined cycle net generation breakdown as follows: Combustion Turbine Part, 267,691 MWh; Steam Part, 781,477 MWh.

***Chugach Electric's combined cycle net generation breakdown as follows: Combustion Turbine Part 238,404; Steam Part, 1,052,342 MWh.

Table 2.3b Net Generation (MWh) by Fuel Type and Fuel Use, 2008

Utility Name	Plant Name	Community	Net Generation by Fuel Type (MWh)					Fuel Use			Source
			Oil	Gas	Coal	Hydro	Wind	Oil (Barrels)	Gas (Mcf)	Coal (Short Tons)	
State			1,042,354	3,942,237	397,467	1,129,996	2,246	1,796,707	43,279,950	427,228	
Arctic Northwest			126,389	47,795			983	229,082	711,932		
South Central			75,501	3,894,442		544,755		154,250	42,568,018		
South East			91,415			579,542		179,864			
South West			171,674			5,699	1,264	300,548			
Yukon			577,375		397,467			932,962		427,228	
Arctic Northwest			126,389	47,795			983	229,082	711,932		
Alaska Village Electric Coop		Ambler	1,259					2,210			PCE
Alaska Village Electric Coop		Brevig Mission	1,025					1,706			PCE
Alaska Village Electric Coop		Elim	1,093					1,889			PCE
Alaska Village Electric Coop		Gambell	1,902					3,387			PCE
Alaska Village Electric Coop		Kiana	1,665					3,007			PCE
Alaska Village Electric Coop		Kivalina	1,234					2,348			PCE
Alaska Village Electric Coop		Koyuk	1,360					2,454			PCE
Alaska Village Electric Coop		Noatak	1,965					3,407			PCE
Alaska Village Electric Coop		Noorvik	2,033					3,892			PCE
Alaska Village Electric Coop		Saint Michael	1,859					3,047			PCE
Alaska Village Electric Coop		Savoonga	2,060					3,668			PCE
Alaska Village Electric Coop		Selawik*	2,925				108	5,265			PCE
Alaska Village Electric Coop		Shaktolik	836					1,449			PCE
Alaska Village Electric Coop		Shishmaref	1,644					2,637			PCE
Alaska Village Electric Coop		Shungnak	1,478					2,561			PCE
Alaska Village Electric Coop		Stebbins	1,403					2,431			PCE

Table 2.3b Net Generation (MWh) by Fuel Type and Fuel Use, 2008

Utility Name	Plant Name	Community	Net Generation by Fuel Type (MWh)					Fuel Use			Source
			Oil	Gas	Coal	Hydro	Wind	Oil (Barrels)	Gas (Mcf)	Coal (Short Tons)	
Alaska Village Electric Coop		Teller	876					1,805			PCE
Alaska Village Electric Coop		Wales	584					1,134			PCE
Barrow Utils & Elect Coop Inc		Barrow	13	47,399				33	707,980		EIA
Buckland, City of		Buckland	1,496					16,967			PCE
Diomedea Joint Utilities		Diomedea	442					1,019			PCE
Golovin Power Utilities		Golovin	381					1,422			PCE
Ignatchiak Electric Company		Deering	700					1,297			PCE
Kobuk Valley Electric Company		Kobuk									PCE
Kotzebue Electric Association		Kotzebue*	21,554				875	33,517			EIA
Nome Joint Utility Systems	Snake River - Nome	Nome	40,049					60,919			EIA
North Slope Borough		Anaktuvuk Pass	3,185					7,248			PCE
North Slope Borough		Atkasuk	2,948					6,117			PCE
North Slope Borough		Kaktovik	5,074					8,886			PCE
North Slope Borough		Nuqsut	4,319	396				6,648	3,952		PCE
North Slope Borough		Point Hope	5,091					9,589			PCE
North Slope Borough		Point Lay	3,221					6,786			PCE
North Slope Borough		Wainwright	5,679					10,908			PCE
Unalakleet Valley Electric Coop		Unalakleet	4,244					7,360			EIA
White Mountain, City of		White Mountain	791					2,070			PCE
South Central			75,501	3,894,442		544,755		154,250	42,568,018		
Alaska Village Electric Coop		Old Harbor	713					1,264			PCE
Alutiiq Power Company		Karluk	264					565			PCE
Anchorage Municipal Light & Power	Anchorage 1	Railbelt	14	73,540				41	793,408		EIA
Anchorage Municipal Light & Power	Eklutna Hydro Project	Railbelt				57,824					EIA

Table 2.3b Net Generation (MWh) by Fuel Type and Fuel Use, 2008

Utility Name	Plant Name	Community	Net Generation by Fuel Type (MWh)					Fuel Use			Source
			Oil	Gas	Coal	Hydro	Wind	Oil (Barrels)	Gas (Mcf)	Coal (Short Tons)	
Anchorage Municipal Light & Power	George M Sullivan Generation Plant 2	Railbelt	179	1,149,288				326	11,700,000		EIA
Chenega Ira Council		Chenega Bay	183					410			PCE
Chitina Electric Inc		Chitina	432					815			PCE
Chugach Electric Assn Inc	Beluga	Railbelt		2,258,547					25,400,000		EIA
Chugach Electric Assn Inc	Bernice Lake	Railbelt		93,631					1,341,511		EIA
Chugach Electric Assn Inc	Cooper Lake	Railbelt				6,663					EIA
Chugach Electric Assn Inc	International	Railbelt		-324					3,714		EIA
Copper Valley Elec Assn Inc	Glennallen	Glennallen	6,748					13,507			EIA
Copper Valley Elec Assn Inc	Solomon Gulch	Valdez				47,429					EIA
Copper Valley Elec Assn Inc	Valdez	Valdez	1,467					3,906			EIA
Copper Valley Elec Assn Inc	Valdez Cogen	Valdez	24,031					60,824			EIA
Cordova Electric Coop Inc	Orca	Cordova	10,726					19,088			EIA
Cordova Electric Coop Inc	Power Creek	Cordova				14,670					EIA
EIA's Alaska Estimated Adjustment ⁽¹⁾	State-Fuel Level Increment	Railbelt	8,902					14,806			EIA
Homer Electric Assn Inc	Bradley Lake ⁽²⁾	Railbelt				296,759					EIA
Homer Electric Assn Inc	Nikiski Co-Generation	Railbelt		319,760					3,329,385		EIA
Homer Electric Assn Inc	Seldovia	Railbelt	22					44			EIA
Kodiak Electric Assn Inc	Kodiak	Kodiak	15,746					26,535			EIA
Kodiak Electric Assn Inc	Nymans Plant	Kodiak	5,289					10,766			EIA
Kodiak Electric Assn Inc	Port Lions	Kodiak									EIA
Kodiak Electric Assn Inc	Terror Lake	Kodiak				120,879					EIA
Larsen Bay Utility Company		Larsen Bay	139			531		111			PCE
Ouzinkie, City of		Ouzinkie	199					364			PCE
Tatitlek Village Ira Council		Tatitlek	447					879			PCE

Table 2.3b Net Generation (MWh) by Fuel Type and Fuel Use, 2008

Utility Name	Plant Name	Community	Net Generation by Fuel Type (MWh)					Fuel Use			Source
			Oil	Gas	Coal	Hydro	Wind	Oil (Barrels)	Gas (Mcf)	Coal (Short Tons)	
South East			91,415		579,542		179,864				
Alaska Electric Light & Power Co	Annex Creek	Juneau			28,475					EIA	
Alaska Electric Light & Power Co	Auke Bay	Juneau	15,592				39,771			EIA	
Alaska Electric Light & Power Co	Gold Creek	Juneau	16		4,731		33			EIA	
Alaska Electric Light & Power Co	Lemon Creek	Juneau	28,363				59,117			EIA	
Alaska Electric Light & Power Co	Salmon Creek 1	Juneau			26,042					EIA	
Alaska Electric Light & Power Co	Snettisham	Juneau			220,640					EIA	
Alaska Power & Telephone Company		Coffman Cove	885				1,618			PCE	
Alaska Power & Telephone Company		Craig	4,657				7,980			PCE	
Alaska Power & Telephone Company		Haines	196				358			PCE	
Alaska Power & Telephone Company		Hollis								PCE	
Alaska Power & Telephone Company		Hydaburg								PCE	
Alaska Power & Telephone Company		Klawock								PCE	
Alaska Power & Telephone Company		Naukati Bay	497				952			PCE	
Alaska Power & Telephone Company		Skagway	2,812				4,536			PCE	
Alaska Power & Telephone Company		Thorne Bay								PCE	
Alaska Power & Telephone Company		Whale Pass	270				554			PCE	
Elfin Cove Utility Commission		Elfin Cove	377				730			PCE	
Gustavus Electric Co		Gustavus	1,803				2,910			PCE	
Inside Passage Elec Coop Inc		Angoon	1,814				3,407			EIA	
Inside Passage Elec Coop Inc		Chilkat Valley								EIA	
Inside Passage Elec Coop Inc		Hoonah	5,012				8,302			EIA	
Inside Passage Elec Coop Inc		Kake	2,447				4,668			EIA	
Inside Passage Electric		Klukwan								PCE	

Table 2.3b Net Generation (MWh) by Fuel Type and Fuel Use, 2008

Utility Name	Plant Name	Community	Net Generation by Fuel Type (MWh)					Fuel Use			Source
			Oil	Gas	Coal	Hydro	Wind	Oil (Barrels)	Gas (Mcf)	Coal (Short Tons)	
Ketchikan Public Utilities	Beaver Falls	Ketchikan				46,581					EIA
Ketchikan Public Utilities	Ketchikan	Ketchikan				23,871					EIA
Ketchikan Public Utilities	S W Bailey	Ketchikan	16,184					27,093			EIA
Ketchikan Public Utilities	Silvis	Ketchikan				13,177					EIA
Ketchikan Public Utilities	Swan Lake	Ketchikan				67,246					EIA
Metlakatla Power & Light	Centennial	Metlakatla	264					774			EIA
Metlakatla Power & Light	Chester Lake	Metlakatla				3,802					EIA
Metlakatla Power & Light	Purple Lake	Metlakatla				13,583					EIA
Pelican Utility		Pelican	298			1,340		706			EIA
Petersburg, City of		Petersburg	946			13,176		1,587			EIA
Sitka, City & Borough of	Blue Lake	Sitka				55,760					EIA
Sitka, City & Borough of	Green Lake	Sitka				61,118					EIA
Sitka, City & Borough of	Jarvis Street	Sitka	1,130					1,922			SITKA
Tenakee Springs, City of		Tenakee Springs	414					743			PCE
Wrangell, City of		Wrangell	621					1,193			EIA
Yakutat Power Inc		Yakutat	6,818					10,909			PCE
South West			171,674			5,699	1,264	300,548			
Akiachak Native Community		Akiachak	1,584					3,562			PCE
Akiak City Council		Akiak	1,091					2,177			PCE
Akutan, City of		Akutan	667					1,080			PCE
Alaska Village Electric Coop		Eek	779					1,520			PCE
Alaska Village Electric Coop		Goodnews Bay	703					1,341			PCE
Alaska Village Electric Coop		Kalskag	1,220					2,020			PCE
Alaska Village Electric Coop		Kasigluk*	2,192				594	3,912			PCE

Table 2.3b Net Generation (MWh) by Fuel Type and Fuel Use, 2008

Utility Name	Plant Name	Community	Net Generation by Fuel Type (MWh)					Fuel Use			Source
			Oil	Gas	Coal	Hydro	Wind	Oil (Barrels)	Gas (Mcf)	Coal (Short Tons)	
Alaska Village Electric Coop		Lower Kalskag									PCE
Alaska Village Electric Coop		Mekoryuk	905					1,618			PCE
Alaska Village Electric Coop		New Stuyahok	1,612					2,713			PCE
Alaska Village Electric Coop		Nightmute	220					402			PCE
Alaska Village Electric Coop		Nunapitchuk						2			PCE
Alaska Village Electric Coop		Quinhagak	2,019					3,436			PCE
Alaska Village Electric Coop		Togiak	2,635					4,374			PCE
Alaska Village Electric Coop		Toksook Bay*	2,285				659	3,797			PCE
Alaska Village Electric Coop		Tununak	16					32			PCE
Aniak Light & Power		Aniak	2,502					4,736			EIA
Atka, City of		Atka	473					1,041			PCE
Atmautluak Tribal Utilities		Atmautluak	680					1,215			PCE
Bethel Utilities Corporation		Bethel	41,723					72,878			EIA
Chignik Lagoon Power Utility		Chignik Lagoon	556					1,066			PCE
Chignik, City of		Chignik	595			6		1,491			PCE
Egegik Light & Power Co		Egegik	721					1,561			PCE
Ekwok, City of		Ekwok						801			PCE
G & K Inc		Cold Bay	2,923					5,159			PCE
Igiugig Electric Company		Igiugig	245					517			PCE
I-N-N Electric Coop, Inc	Tazimina	Iliamna, Newhalen, Nondalton	547			3,244		998			PCE
King Cove, City of		King Cove	2,105			2,449		3,868			EIA
Kipnuk Light Plant		Kipnuk	1,618					3,558			PCE
Kokhanok Village Council		Kokhanok	467					911			PCE

Table 2.3b Net Generation (MWh) by Fuel Type and Fuel Use, 2008

Utility Name	Plant Name	Community	Net Generation by Fuel Type (MWh)					Fuel Use			Source
			Oil	Gas	Coal	Hydro	Wind	Oil (Barrels)	Gas (Mcf)	Coal (Short Tons)	
Kwethluk Incorporated		Kwethluk	1,320					2,910			PCE
Kwigilingok Power Company		Kwigilingok	881					1,610			PCE
Levelock Electrical Coop		Levelock	189					876			PCE
Lime Village Electric Utility		Lime Village	81					221			PCE
Manokotak Power Company		Manokotak	1,353					2,357			PCE
Mcgrath Light & Power		McGrath	2,621					5,134			EIA
Middle Kuskokwim Electric		Chuathbaluk	254					531			PCE
Middle Kuskokwim Electric		Crooked Creek	277					560			PCE
Middle Kuskokwim Electric		Red Devil	146					359			PCE
Middle Kuskokwim Electric		Sleetmute	258					680			PCE
Middle Kuskokwim Electric		Stony River	135					339			PCE
Naknek Electric		Naknek	22,129					35,835			EIA
Napakiak Ircinraq		Napakiak									PCE
Napaskiak Electric Utility		Napaskiak	961					1,728			PCE
Naterkaq Light Plant		Chefomak	1,063					1,937			PCE
Nelson Lagoon Electrical Coop		Nelson Lagoon	444					805			PCE
New Koliganek Village Council		Koliganek	233					923			PCE
Nikolai, City of		Nikolai						656			PCE
Nushagak Electric		Dillingham	18,527					29,325			EIA
Pedro Bay Village Council		Pedro Bay	263					559			PCE
Pilot Point Electric Utility		Pilot Point*	408				11	967			PCE
Platinum, City of		Platinum	179					359			PCE
Puvuruaq Power Company		Kongiganak	1,065					2,029			PCE
St. Paul Municipal Electric		Saint Paul	5,537					9,495			PCE

Table 2.3b Net Generation (MWh) by Fuel Type and Fuel Use, 2008

Utility Name	Plant Name	Community	Net Generation by Fuel Type (MWh)					Fuel Use			Source
			Oil	Gas	Coal	Hydro	Wind	Oil (Barrels)	Gas (Mcf)	Coal (Short Tons)	
Takotna Community Assoc Inc		Takotna	252					489			PCE
Tanalien Electric Cooperative		Port Alsworth	607					1,203			PCE
TDX Adak Generating LLC		Adak	380					803			PCE
TDX Corporation		Sand Point	4,344					7,505			PCE
Tuluksak Traditional		Tuluksak	637					1,156			PCE
Tuntutuliak Community		Tuntutuliak	969					1,884			PCE
Twin Hills Village Council		Twin Hills	276					694			PCE
Umnak Power Company		Nikolski	304					578			PCE
Unalaska, City of	Dutch Harbor	Dutch Harbor	29,427					48,862			EIA
Unalaska, City of	Unalaska Power Module	Dutch Harbor	2,704					4,584			EIA
Ungusraq Power Company		Newtok	370					811			PCE
Yukon			577,375		397,467			932,962		427,228	
Alaska Power & Telephone Company		Allakaket	660					1,168			PCE
Alaska Power & Telephone Company		Bettles	647					1,278			PCE
Alaska Power & Telephone Company		Chistochina	339					637			PCE
Alaska Power & Telephone Company		Dot Lake									PCE
Alaska Power & Telephone Company		Eagle	748					1,458			PCE
Alaska Power & Telephone Company		Healy Lake	94					255			PCE
Alaska Power & Telephone Company		Mentasta Lake	324					663			PCE
Alaska Power & Telephone Company		Northway	1,458					2,546			PCE
Alaska Power & Telephone Company		Slana	466					886			PCE
Alaska Power & Telephone Company		Tetlin	78								PCE
Alaska Power & Telephone Company		Tok	11,963					20,133			PCE
Alaska Village Electric Coop		Alakanuk	1,865					3,204			PCE

Table 2.3b Net Generation (MWh) by Fuel Type and Fuel Use, 2008

Utility Name	Plant Name	Community	Net Generation by Fuel Type (MWh)					Fuel Use			Source
			Oil	Gas	Coal	Hydro	Wind	Oil (Barrels)	Gas (Mcf)	Coal (Short Tons)	
Alaska Village Electric Coop		Anvik	428					847			PCE
Alaska Village Electric Coop		Chevak	2,339					4,385			PCE
Alaska Village Electric Coop		Emmonak	2,953					5,498			PCE
Alaska Village Electric Coop		Grayling	586					1,144			PCE
Alaska Village Electric Coop		Holy Cross	644					1,190			PCE
Alaska Village Electric Coop		Hooper Bay	2,803					4,909			PCE
Alaska Village Electric Coop		Huslia	927					1,635			PCE
Alaska Village Electric Coop		Kaltag	755					1,258			PCE
Alaska Village Electric Coop		Marshall	1,273					2,145			PCE
Alaska Village Electric Coop		Minto	635					1,190			PCE
Alaska Village Electric Coop		Mountain Village	2,703					4,339			PCE
Alaska Village Electric Coop		Nulato	1,070					1,842			PCE
Alaska Village Electric Coop		Pilot Station	1,692					3,138			PCE
Alaska Village Electric Coop		Pitkas Point									PCE
Alaska Village Electric Coop		Russian Mission	867					1,490			PCE
Alaska Village Electric Coop		Saint Marys	3,015					5,093			PCE
Alaska Village Electric Coop		Scammon Bay	1,736					3,159			PCE
Alaska Village Electric Coop		Shageluk	373					805			PCE
Aurora Energy LLC	Aurora Energy LLC Chena	Fairbanks			177,106					216,972	EIA
Beaver Joint Utilities		Beaver						871			PCE
Central Electric Inc		Central	460					1,037			PCE
Chalkyitsik Village Council		Chalkyitsik	151					274			PCE
Circle Electric Utility		Circle	331					764			PCE
Galena, City of		Galena	7,164					12,508			PCE

Table 2.3b Net Generation (MWh) by Fuel Type and Fuel Use, 2008

Utility Name	Plant Name	Community	Net Generation by Fuel Type (MWh)					Fuel Use			Source
			Oil	Gas	Coal	Hydro	Wind	Oil (Barrels)	Gas (Mcf)	Coal (Short Tons)	
Golden Valley Elec Assn Inc	Delta Power	Delta Junction	-144					126			EIA
Golden Valley Elec Assn Inc	Fairbanks	Fairbanks	5,330					22,674			EIA
Golden Valley Elec Assn Inc	Healy	Healy*	215		220,360			498		210,256	EIA
Golden Valley Elec Assn Inc	North Pole	North Pole	512,716					802,379			EIA
Gwitchyaa Zhee Utilities Co		Fort Yukon	2,556					5,352			EIA
Hughes Power & Light		Hughes	322					591			PCE
Kotlik Joint Utility		Kotlik	1,876					3,349			PCE
Koyukuk, City of		Koyukuk	222					307			PCE
Manley Utilities		Manley Hot Springs	305					686			PCE
Nunam Iqua Electric Company		Nunam Iqua	876					1,365			PCE
Ruby, City of		Ruby						1,016			PCE
Stevens Village Ira Council		Stevens Village	290					635			PCE
Tanana Power Company Inc		Tanana	1,264					2,238			PCE

(1) This is a statistical adjustment made by EIA. Plants that did not respond to EIA's survey or data that could not be verified are estimated. The estimates are rolled-into state/fuel aggregates with a "99999" plant code.

(2) Generation from Bradley Lake. Reporting to EIA is based on ownership of the generating plant or who operates the plant depending on the survey form. The Alaska Energy Authority owns Bradley Lake; however it is operated by Homer Electric Association.

Table 2.3c Net Generation (MWh), Fuel Use, and Fuel Cost by Plant*, 2008

Utility Name	Plant Name	Community	Fuel Type	Prime Mover ⁽²⁾	Net Generation MWh	Fuel Use ⁽³⁾	Total Fuel Consumption MMBtu	Avg. Cost per gallon-Mcf	KWh per gallon-Mcf	Fuel Cost \$ per kWh	Source
State					5,417,104		59,702,200			0.09	
Arctic Northwest					168,732		1,936,693			0.18	
South Central					3,972,299		43,633,879			0.06	
South East					93,336		1,044,489			0.27	
South West					207,573		2,102,517			0.24	
Yukon					975,164		10,984,621			0.17	
Arctic Northwest					168,732		1,936,693			0.18	
Alaska Village Electric Coop		Ambler	Distillate Fuel Oil	IC	1,322	2,235	13,018	4.65	14	0.33	PCE
Alaska Village Electric Coop		Brevig Mission	Distillate Fuel Oil	IC	1,002	1,709	9,957	2.40	14	0.17	PCE
Alaska Village Electric Coop		Elim	Distillate Fuel Oil	IC	1,099	1,914	11,149	2.42	14	0.18	PCE
Alaska Village Electric Coop		Gambell	Distillate Fuel Oil	IC	1,853	3,350	19,513	2.44	13	0.19	PCE
Alaska Village Electric Coop		Kiana	Jet Fuel	IC	1,687	3,054	17,789	3.03	13	0.23	PCE
Alaska Village Electric Coop		Kivalina	Distillate Fuel Oil	IC	1,252	2,362	13,761	3.05	13	0.24	PCE
Alaska Village Electric Coop		Koyuk	Distillate Fuel Oil	IC	1,350	2,428	14,146	2.45	13	0.19	PCE
Alaska Village Electric Coop		Noatak	Distillate Fuel Oil	IC	1,772	3,111	18,119	5.08	14	0.37	PCE
Alaska Village Electric Coop		Noorvik	Jet Fuel	IC	2,031	3,676	21,415	3.03	13	0.23	PCE
Alaska Village Electric Coop		Saint Michael	Distillate Fuel Oil	IC	1,670	2,748	16,007	2.51	14	0.17	PCE
Alaska Village Electric Coop		Savoonga	Distillate Fuel Oil	IC	2,004	3,774	21,982	2.44	13	0.19	PCE
Alaska Village Electric Coop		Selawik	Jet Fuel	IC	2,802	4,993	29,086	3.11	13	0.23	PCE
Alaska Village Electric Coop		Shaktolik	Distillate Fuel Oil	IC	796	1,381	8,042	2.42	14	0.18	PCE
Alaska Village Electric Coop		Shishmaref	Jet Fuel	IC	1,637	2,650	15,436	2.29	15	0.16	PCE
Alaska Village Electric Coop		Shungnak	Distillate Fuel Oil	IC	1,484	2,562	14,925	4.49	14	0.33	PCE
Alaska Village Electric Coop		Stebbins	Distillate Fuel Oil	IC	1,402	2,423	14,114	2.48	14	0.18	PCE

Table 2.3c Net Generation (MWh), Fuel Use, and Fuel Cost by Plant*, 2008

Utility Name	Plant Name	Community	Fuel Type	Prime Mover ⁽²⁾	Net Generation MWh	Fuel Use ⁽³⁾	Total Fuel Consumption MMBtu	Avg. Cost per gallon-Mcf	KWh per gallon-Mcf	Fuel Cost \$ per kWh	Source
Alaska Village Electric Coop		Teller	Distillate Fuel Oil	IC	867	1,797	10,466	2.99	11	0.26	PCE
Alaska Village Electric Coop		Wales	Distillate Fuel Oil	IC	569	1,129	6,578	2.48	12	0.21	PCE
Barrow Utils & Elect Coop Inc	Barrow	Barrow	Distillate Fuel Oil	GT	13	33	198		10		EIA
Barrow Utils & Elect Coop Inc	Barrow	Barrow	Natural Gas	GT	47,399	707,980	707,980		67		EIA
Barrow Utils & Elect Coop Inc	Barrow	Barrow	Natural Gas	IC							EIA
City of Buckland C/O		Buckland	Distillate Fuel Oil	IC	1,546	3,539	20,615	3.07	10	0.30	PCE
City of White Mountain		White Mountain	Distillate Fuel Oil	IC	835	1,884	10,976	3.05	11	0.29	PCE
Diomed Joint Utilities		Diomed	Distillate Fuel Oil	IC	424	1,047	6,098	3.39	10	0.35	PCE
Golovin Power Utilities		Golovin	Distillate Fuel Oil	IC	740	1,428	8,320	3.35	12	0.27	PCE
Ignatchiaq Electric Company		Deering	Distillate Fuel Oil	IC	669	1,283	7,473	3.21	12	0.26	PCE
Kobuk Valley Electric Company		Kobuk	Distillate Fuel Oil	IC							PCE
Kotzebue Electric Association		Kotzebue	Distillate Fuel Oil	IC	20,916	33,895	197,435	2.01	15	0.14	PCE
Nome Joint Utility System	Snake River	Nome	Distillate Fuel Oil	IC	35,590	52,841	307,799	2.37	16	0.15	PCE
North Slope Borough	NSB Anaktuvuk Pass	Anaktuvuk Pass	Distillate Fuel Oil	IC	3,185	7,248	44,938		10		EIA
North Slope Borough	NSB Atkasuk Utility	Atkasuk	Distillate Fuel Oil	IC	2,948	6,117	37,924		11		EIA
North Slope Borough	NSB Kaktovik Utility	Kaktovik	Distillate Fuel Oil	IC	5,074	8,886	55,094		14		EIA
North Slope Borough	NSB Nuiqsut Utility	Nuiqsut	Distillate Fuel Oil	IC	4,319	6,648	41,217		15		EIA
North Slope Borough	NSB Nuiqsut Utility	Nuiqsut	Natural Gas	NG	396	3,952	4,347		91		EIA
North Slope Borough	NSB Point Hope Utility	Point Hope	Distillate Fuel Oil	IC	5,091	9,589	59,452		13		EIA
North Slope Borough	NSB Point Lay Utility	Point Lay	Distillate Fuel Oil	IC	3,221	6,786	42,073		11		EIA
North Slope Borough	NSB Wainwright Utility	Wainwright	Distillate Fuel Oil	IC	5,679	10,908	67,630		12		EIA
Unalakleet Valley Electric Coop		Unalakleet	Distillate Fuel Oil	IC	4,090	7,146	41,622	2.82	14	0.21	PCE
South Central					3,972,299		43,633,879			0.06	
Alaska Village Electric Coop		Old Harbor	Distillate Fuel Oil	IC	709	1,258	7,327	2.48	13	0.18	PCE
Alutiiq Power Company		Karluk	Distillate Fuel Oil	IC	259	556	3,240	2.37	11	0.21	PCE

Table 2.3c Net Generation (MWh), Fuel Use, and Fuel Cost by Plant*, 2008

Utility Name	Plant Name	Community	Fuel Type	Prime Mover ⁽²⁾	Net Generation MWh	Fuel Use ⁽³⁾	Total Fuel Consumption MMBtu	Avg. Cost per gallon-Mcf	KWh per gallon-Mcf	Fuel Cost \$ per kWh	Source
Anchorage Municipal Light & Power	Anchorage 1	Anchorage	Distillate Fuel Oil	GT	7	13	72		12		EIA
Anchorage Municipal Light & Power	Anchorage 1	Anchorage	Distillate Fuel Oil	IC	7	28	155		6		EIA
Anchorage Municipal Light & Power	Anchorage 1	Anchorage	Natural Gas	GT	73,540	793,408	809,277	2.95	93	0.03	EIA
Anchorage Municipal Light & Power	George M Sullivan Generation Plant 2	Anchorage	Distillate Fuel Oil	CA	46						EIA
Anchorage Municipal Light & Power	George M Sullivan Generation Plant 2	Anchorage	Distillate Fuel Oil	CT	133	326	1,801		10		EIA
Anchorage Municipal Light & Power	George M Sullivan Generation Plant 2	Anchorage	Natural Gas	CA	267,645			2.66			EIA
Anchorage Municipal Light & Power	George M Sullivan Generation Plant 2	Anchorage	Natural Gas	CT	781,344	10,346,709	10,553,645	2.66	76	0.04	EIA
Anchorage Municipal Light & Power	George M Sullivan Generation Plant 2	Anchorage	Natural Gas	GT	100,299	1,319,123	1,345,504	2.66	76	0.03	EIA
Anchorage Municipal Light & Power	George M Sullivan Generation Plant 2	Anchorage	Other	CA							EIA
Anchorage Municipal Light & Power	George M Sullivan Generation Plant 2	Anchorage	Other	CT							EIA
Chenega Ira Council		Chenega Bay	Distillate Fuel Oil	IC	223	468	2,724	3.68	11	0.32	PCE
Chitina Electric Inc		Chitina	Distillate Fuel Oil	IC	427	834	4,858	3.32	12	0.27	PCE
Chugach Electric Assn Inc	International	Anchorage	Natural Gas	GT	-324	3,714	3,714		-87		EIA
Chugach Electric Assn Inc	Beluga	Beluga	Natural Gas	CA	238,404			5.01			EIA
Chugach Electric Assn Inc	Beluga	Beluga	Natural Gas	CT	1,052,342	12,231,346	12,231,346	5.01	86	0.06	EIA
Chugach Electric Assn Inc	Beluga	Beluga	Natural Gas	GT	967,801	13,122,002	13,122,002	5.01	74	0.07	EIA
Chugach Electric Assn Inc	Bernice Lake	Nikiski	Natural Gas	GT	93,631	1,341,511	1,341,511	5.18	70	0.07	EIA
City of Ouzinkie		Ouzinkie	Distillate Fuel Oil	IC	349	767	4,470	3.23	11	0.30	PCE
Copper Valley Elec Assn Inc	Glennallen	Glennallen	Distillate Fuel Oil	IC	6,748	13,507	78,339		12		EIA
Copper Valley Elec Assn Inc	Valdez	Valdez	Distillate Fuel Oil	GT	7	21	124		8		EIA
Copper Valley Elec Assn Inc	Valdez	Valdez	Distillate Fuel Oil	IC	1,460	3,885	22,532		9		EIA
Copper Valley Elec Assn Inc	Valdez Cogen	Valdez	Jet Fuel	GT	24,031	60,824	352,779		9		EIA
Cordova Electric		Cordova	Distillate Fuel Oil	IC	12,824	19,598	114,158	3.03	16	0.19	PCE
EIA's Alaska Estimated Adjustment ⁽¹⁾	State-Fuel Level Increment	Multiple	Distillate Fuel Oil	IC	8,902	14,806	82,460		14		EIA
Homer Electric Assn Inc	Nikiski Co-Generation	Nikiski	Natural Gas	GT	319,760	3,329,385	3,329,385		96		EIA

Table 2.3c Net Generation (MWh), Fuel Use, and Fuel Cost by Plant*, 2008

Utility Name	Plant Name	Community	Fuel Type	Prime Mover ⁽²⁾	Net Generation MWh	Fuel Use ⁽³⁾	Total Fuel Consumption MMBtu	Avg. Cost per gallon-Mcf	KWh per gallon-Mcf	Fuel Cost \$ per kWh	Source
Homer Electric Assn Inc	Seldovia	Seldovia	Distillate Fuel Oil	IC	22	44	264		12		EIA
Kodiak Electric Assn Inc	Kodiak	Kodiak	Distillate Fuel Oil	IC	15,746	26,535	153,374		14		EIA
Kodiak Electric Assn Inc	Nymans Plant	Kodiak	Distillate Fuel Oil	IC	5,289	10,766	62,444		12		EIA
Kodiak Electric Assn Inc	Port Lions	Port Lions	Distillate Fuel Oil	IC							EIA
Larsen Bay Utility Company		Larsen Bay	Distillate Fuel Oil	IC	221	216	1,255	3.23	24	0.13	PCE
Tatitlek Village Ira Council		Tatitlek	Distillate Fuel Oil	IC	447	879	5,118	3.60	12	0.30	PCE
South East					93,336		1,044,489			0.27	
Alaska Electric Light & Power Co	Auke Bay	Juneau	Distillate Fuel Oil	GT	14,455	37,342	207,024		9		EIA
Alaska Electric Light & Power Co	Auke Bay	Juneau	Distillate Fuel Oil	IC	1,137	2,429	13,492		11		EIA
Alaska Electric Light & Power Co	Gold Creek	Juneau	Distillate Fuel Oil	IC	16	33	186		12		EIA
Alaska Electric Light & Power Co	Lemon Creek	Juneau	Distillate Fuel Oil	GT	5,066	15,624	87,337	3.54	8	0.46	EIA
Alaska Electric Light & Power Co	Lemon Creek	Juneau	Distillate Fuel Oil	IC	23,297	43,493	242,144	3.54	13	0.28	EIA
Alaska Power & Telephone Company		Coffman Cove	Distillate Fuel Oil	IC	913	1,668	9,714	3.13	13	0.24	PCE
Alaska Power & Telephone Company		Craig	Distillate Fuel Oil	IC	4,768	8,176	47,625	2.80	14	0.20	PCE
Alaska Power & Telephone Company		Haines	Distillate Fuel Oil	IC	192	359	2,093	2.96	13	0.23	PCE
Alaska Power & Telephone Company		Hollis	Distillate Fuel Oil	IC							PCE
Alaska Power & Telephone Company	Hydaburg	Hydaburg	Distillate Fuel Oil	IC	73	161	932		11		EIA
Alaska Power & Telephone Company		Klawock	Distillate Fuel Oil	IC							PCE
Alaska Power & Telephone Company		Naukati Bay	Distillate Fuel Oil	IC	513	978	5,694	3.14	13	0.25	PCE
Alaska Power & Telephone Company	False Island	Prince of Wales	Distillate Fuel Oil	IC	1,120	1,964	11,735		14		EIA
Alaska Power & Telephone Company	Viking	Prince of Wales	Distillate Fuel Oil	IC	133	326	1,888		10		EIA
Alaska Power & Telephone Company		Skagway	Distillate Fuel Oil	IC	2,882	4,651	27,091	3.04	15	0.21	PCE
Alaska Power & Telephone Company	Thorne Bay Plant	Thorne Bay	Distillate Fuel Oil	IC	6	170	985		1		EIA
Alaska Power & Telephone Company		Whale Pass	Distillate Fuel Oil	IC	271	558	3,253	3.13	12	0.27	PCE
City of Petersburg	Petersburg	Petersburg	Distillate Fuel Oil	IC	946	1,587	9,205		14		EIA

Table 2.3c Net Generation (MWh), Fuel Use, and Fuel Cost by Plant*, 2008

Utility Name	Plant Name	Community	Fuel Type	Prime Mover ⁽²⁾	Net Generation MWh	Fuel Use ⁽³⁾	Total Fuel Consumption MMBtu	Avg. Cost per gallon-Mcf	KWh per gallon-Mcf	Fuel Cost \$ per kWh	Source
City of Tenakee Springs		Tenakee Springs	Distillate Fuel Oil	IC	387	727	4,236	3.54	13	0.28	PCE
City of Wrangell	Wrangell	Wrangell	Distillate Fuel Oil	IC	621	1,193	6,563		12		EIA
Elfin Cove Utility Commission		Elfin Cove	Distillate Fuel Oil	IC	360	702	4,086	4.05	12	0.33	PCE
Gustavus Electric Co		Gustavus	Distillate Fuel Oil	IC	1,803	3,146	18,325	3.07	14	0.22	PCE
Inside Passage Electric		Angoon	Distillate Fuel Oil	IC	1,934	3,524	20,525	3.22	13	0.25	PCE
Inside Passage Electric		Haines	Distillate Fuel Oil	IC				3.09			PCE
Inside Passage Electric		Hoonah	Distillate Fuel Oil	IC	5,017	8,744	50,932	3.22	14	0.24	PCE
Inside Passage Electric		Kake	Distillate Fuel Oil	IC	2,645	4,748	27,659	3.13	13	0.24	PCE
Inside Passage Electric		Klukwan	Distillate Fuel Oil	IC				3.09			PCE
Ketchikan Public Utilities	S W Bailey	Ketchikan	Distillate Fuel Oil	IC	16,184	27,093	157,683		14		EIA
Metlakatla Power & Light	Centennial	Metlakatla	Distillate Fuel Oil	IC	264	774	4,527		8		EIA
Pelican Utility	Pelican	Pelican	Distillate Fuel Oil	IC	298	706	4,149		10		EIA
Sitka City & Borough of	Jarvis Street	Sitka	Distillate Fuel Oil	IC	1,130	1,922	11,196		14		SITKA
Yakutat Power Inc		Yakutat	Distillate Fuel Oil	IC	6,904	11,023	64,210	3.32	15	0.22	PCE
South West					207,573		2,102,517			0.24	
Akiachak Native Community		Akiachak	Distillate Fuel Oil	IC	1,850	3,936	22,924	3.01	11	0.27	PCE
Akiak City Council		Akiak	Distillate Fuel Oil	IC	1,160	2,238	13,033	3.04	12	0.25	PCE
Alaska Village Electric Coop		Eek	Distillate Fuel Oil	IC	795	1,526	8,886	2.44	12	0.20	PCE
Alaska Village Electric Coop		Goodnews Bay	Distillate Fuel Oil	IC	686	1,317	7,673	2.42	12	0.20	PCE
Alaska Village Electric Coop		Kalskag	Distillate Fuel Oil	IC	1,212	2,016	11,743	2.44	14	0.17	PCE
Alaska Village Electric Coop		Kasigluk	Distillate Fuel Oil	IC	2,106	3,669	21,369	2.44	14	0.18	PCE
Alaska Village Electric Coop		Lower Kalskag	Distillate Fuel Oil	IC				2.44			PCE
Alaska Village Electric Coop		Mekoryuk	Distillate Fuel Oil	IC	932	1,634	9,521	2.42	14	0.18	PCE
Alaska Village Electric Coop		New Stuyahok	Distillate Fuel Oil	IC	1,408	2,398	13,967	3.23	14	0.23	PCE
Alaska Village Electric Coop		Nightmute	Distillate Fuel Oil	IC	521	953	5,550	2.48	13	0.19	PCE

Table 2.3c Net Generation (MWh), Fuel Use, and Fuel Cost by Plant*, 2008

Utility Name	Plant Name	Community	Fuel Type	Prime Mover ⁽²⁾	Net Generation MWh	Fuel Use ⁽³⁾	Total Fuel Consumption MMBtu	Avg. Cost per gallon-Mcf	KWh per gallon-Mcf	Fuel Cost \$ per kWh	Source
Alaska Village Electric Coop		Nunapitchuk	Distillate Fuel Oil	IC	0	2	9	2.44	2	1.15	PCE
Alaska Village Electric Coop		Quinhagak	Distillate Fuel Oil	IC	1,985	3,409	19,859	2.47	14	0.18	PCE
Alaska Village Electric Coop		Togiak	Jet Fuel	IC	2,667	4,481	26,101	2.75	14	0.19	PCE
Alaska Village Electric Coop		Toksook Bay	Distillate Fuel Oil	IC	2,016	3,380	19,686	2.42	14	0.17	PCE
Alaska Village Electric Coop		Tununak	Distillate Fuel Oil	IC	84	167	970	2.42	12	0.20	PCE
Aniak Light & Power		Aniak	Distillate Fuel Oil	IC	2,594	4,805	27,987	3.35	13	0.26	PCE
Atmautluak Tribal Utilities		Atmautluak	Distillate Fuel Oil	IC	680	1,215	7,077	3.05	11	0.28	PCE
Bethel Utilities Corporation		Bethel	Distillate Fuel Oil	IC	42,464	73,221	426,511	4.14	14	0.30	PCE
Chignik Lagoon Power Utility		Chignik Lagoon	Distillate Fuel Oil	IC	556	1,060	5,183	4.10	12	0.33	PCE
City of Akutan		Akutan	Distillate Fuel Oil	IC	691	1,165	6,784	2.93	14	0.21	PCE
City of Atka		Atka	Distillate Fuel Oil	IC	470	921	5,367	3.90	12	0.32	PCE
City of Chignik		Chignik	Distillate Fuel Oil	IC	595	1,491	5,651	3.19	9	0.32	PCE
City of Ekwok		Ekwok	Distillate Fuel Oil	IC		680	3,959	3.66			PCE
City of False Pass		False Pass	Distillate Fuel Oil	IC	153	328	1,912	2.19	11	0.20	PCE
City of King Cove		King Cove	Distillate Fuel Oil	IC	2,109	4,581	26,683	2.74	11	0.25	PCE
City of Nikolai		Nikolai	Distillate Fuel Oil	IC		615	3,583	3.03			PCE
City of Platinum		Platinum	Distillate Fuel Oil	IC	230	479	2,792	3.57	11	0.31	PCE
City of Unalaska	Dutch Harbor	Dutch Harbor	Distillate Fuel Oil	IC	29,427	48,862	283,400		14		EIA
City of Unalaska	Unalaska Power Module	Dutch Harbor	Distillate Fuel Oil	IC	2,704	4,584	26,587		14		EIA
City of Unalaska		Unalaska	Distillate Fuel Oil	IC	34,863	59,093	344,218	3.17	14	0.23	PCE
Egegik Light & Power Co		Egegik	Distillate Fuel Oil	IC	737	1,555	9,056	4.01	11	0.36	PCE
G & K Inc		Cold Bay	Distillate Fuel Oil	IC	2,852	5,128	29,873	4.17	13	0.31	PCE
Igiugig Electric Company		Igiugig	Distillate Fuel Oil	IC	226	491	2,863	3.95	11	0.36	PCE
I-N-N Electric Coop, Inc		Iliamna, Newhalen, Nondalton	Distillate Fuel Oil	IC	230	424	2,471	4.65	13	0.36	PCE

Table 2.3c Net Generation (MWh), Fuel Use, and Fuel Cost by Plant*, 2008

Utility Name	Plant Name	Community	Fuel Type	Prime Mover ⁽²⁾	Net Generation MWh	Fuel Use ⁽³⁾	Total Fuel Consumption MMBtu	Avg. Cost per gallon-Mcf	KWh per gallon-Mcf	Fuel Cost \$ per kWh	Source
Kipnuk Light Plant		Kipnuk	Distillate Fuel Oil	IC	1,658	3,585	20,884	2.99	11	0.27	PCE
Kokhanok Village Council		Kokhanok	Distillate Fuel Oil	IC	446	914	5,322	5.50	12	0.47	PCE
Kwethluk Incorporated		Kwethluk	Distillate Fuel Oil	IC	1,394	2,771	16,139	3.17	12	0.26	PCE
Kwigilingok Power Company		Kwigilingok	Distillate Fuel Oil	IC	879	1,610	9,380	2.91	13	0.22	PCE
Levelock Electrical Coop		Levelock	Distillate Fuel Oil	IC	391	859	5,003	5.76	11	0.53	PCE
Lime Village Electric Utility		Lime Village	Distillate Fuel Oil	IC	89	211	1,227	5.30	10	0.53	PCE
Manokotak Power Company		Manokotak	Distillate Fuel Oil	IC	1,414	2,324	13,539	3.65	14	0.25	PCE
McGrath Light & Power		McGrath	Distillate Fuel Oil	IC	2,813	5,146	29,977	2.73	13	0.21	PCE
Middle Kuskokwim Electric		Chuathbaluk	Distillate Fuel Oil	IC	237	552	3,217	3.21	10	0.31	PCE
Middle Kuskokwim Electric		Crooked Creek	Distillate Fuel Oil	IC	275	554	3,226	3.21	12	0.27	PCE
Middle Kuskokwim Electric		Red Devil	Distillate Fuel Oil	IC	149	346	2,017	3.21	10	0.31	PCE
Middle Kuskokwim Electric		Sleetmute	Distillate Fuel Oil	IC	254	663	3,863	3.21	9	0.35	PCE
Middle Kuskokwim Electric		Stony River	Distillate Fuel Oil	IC	145	370	2,153	3.21	9	0.34	PCE
Naknek Electric		Naknek	Distillate Fuel Oil	IC	22,440	37,489	218,370	2.52	14	0.18	PCE
Napakiak Incinraq		Napakiak	Distillate Fuel Oil	IC							PCE
Napaskiak Electric Utility		Napaskiak	Distillate Fuel Oil	IC	1,023	1,851	10,781	3.34	13	0.25	PCE
Naterkaq Light Plant		Chefornak	Distillate Fuel Oil	IC	927	1,733	10,093	3.11	13	0.24	PCE
Nelson Lagoon Electrical Coop		Nelson Lagoon	Distillate Fuel Oil	IC	444	805	4,692	3.08	13	0.23	PCE
New Koliganek Village Council		Koliganek	Distillate Fuel Oil	IC		909	5,292	3.75			PCE
Nushagak Electric		Dillingham	Distillate Fuel Oil	IC	18,401	29,494	171,801	2.55	15	0.17	PCE
Pedro Bay Village Council		Pedro Bay	Distillate Fuel Oil	IC	264	550	3,204	5.72	11	0.50	PCE
Pilot Point Electric Utility		Pilot Point	Distillate Fuel Oil	IC	395	908	5,289	4.31	10	0.42	PCE
Puvurnaq Power Company		Kongiganak	Distillate Fuel Oil	IC	1,019	1,944	11,325	3.50	12	0.28	PCE
St. Paul Municipal Electric		Saint Paul	Distillate Fuel Oil	IC	5,920	10,270	59,824	3.48	14	0.25	PCE
Takotna Community Assoc Inc		Takotna	Distillate Fuel Oil	IC	242	474	2,762	3.89	12	0.32	PCE

Table 2.3c Net Generation (MWh), Fuel Use, and Fuel Cost by Plant*, 2008

Utility Name	Plant Name	Community	Fuel Type	Prime Mover ⁽²⁾	Net Generation MWh	Fuel Use ⁽³⁾	Total Fuel Consumption MMBtu	Avg. Cost per gallon-Mcf	KWh per gallon-Mcf	Fuel Cost \$ per kWh	Source
Tanalian Electric Cooperative		Port Alsworth	Distillate Fuel Oil	IC	635	1,273	7,413	4.82	12	0.41	PCE
TDX Corporation		Sand Point	Distillate Fuel Oil	IC	4,206	7,308	42,567	3.84	14	0.28	PCE
Tuluksak Traditional		Tuluksak	Distillate Fuel Oil	IC	622	1,126	6,560	3.71	13	0.28	PCE
Tuntutuliak Community		Tuntutuliak	Distillate Fuel Oil	IC	946	1,897	11,050	3.39	12	0.12	PCE
Twin Hills Village Council		Twin Hills	Distillate Fuel Oil	IC	287	752	4,380	3.33	9	0.37	PCE
Umnak Power Company		Nikolski	Distillate Fuel Oil	IC	285	591	3,443	3.49	11	0.30	PCE
Ungusraq Power Company		Newtok	Distillate Fuel Oil	IC	372	769	4,477	2.78	12	0.24	PCE
Yukon					975,164		10,984,621			0.17	
Alaska Power & Telephone Company		Allakaket	Distillate Fuel Oil	IC	647	1,141	6,644	4.59	14	0.34	PCE
Alaska Power & Telephone Company		Bettles	Distillate Fuel Oil	IC	612	1,158	6,744	3.08	13	0.24	PCE
Alaska Power & Telephone Company		Chistochina	Distillate Fuel Oil	IC	328	618	3,601	3.18	13	0.25	PCE
Alaska Power & Telephone Company		Dot Lake	Distillate Fuel Oil	IC							PCE
Alaska Power & Telephone Company		Eagle	Distillate Fuel Oil	IC	757	1,358	7,910	3.02	13	0.23	PCE
Alaska Power & Telephone Company		Healy Lake	Distillate Fuel Oil	IC	93	263	1,533	2.73	8	0.32	PCE
Alaska Power & Telephone Company		Mentasta Lake	Distillate Fuel Oil	IC	327	725	4,226	3.13	11	0.29	PCE
Alaska Power & Telephone Company		Northway	Distillate Fuel Oil	IC	1,383	2,419	14,092	3.04	14	0.22	PCE
Alaska Power & Telephone Company		Slana	Distillate Fuel Oil	IC	456	840	4,894	3.20	13	0.25	PCE
Alaska Power & Telephone Company		Tetlin	Distillate Fuel Oil	IC	249	363	2,117	3.13	16	0.19	PCE
Alaska Power & Telephone Company		Tok	Distillate Fuel Oil	IC	11,614	19,469	113,408	3.02	14	0.21	PCE
Alaska Village Electric Coop		Alakanuk	Distillate Fuel Oil	IC	1,829	3,205	18,671	2.53	14	0.19	PCE
Alaska Village Electric Coop		Anvik	Distillate Fuel Oil	IC	467	898	5,228	3.08	12	0.25	PCE
Alaska Village Electric Coop		Chevak	Jet Fuel	IC	2,330	4,384	25,535	2.48	13	0.20	PCE
Alaska Village Electric Coop		Emmonak	Jet Fuel	IC	2,921	5,113	29,785	2.46	14	0.18	PCE
Alaska Village Electric Coop		Grayling	Distillate Fuel Oil	IC	578	1,117	6,506	3.08	12	0.25	PCE
Alaska Village Electric Coop		Holy Cross	Distillate Fuel Oil	IC	646	1,187	6,913	3.07	13	0.24	PCE

Table 2.3c Net Generation (MWh), Fuel Use, and Fuel Cost by Plant*, 2008

Utility Name	Plant Name	Community	Fuel Type	Prime Mover ⁽²⁾	Net Generation MWh	Fuel Use ⁽³⁾	Total Fuel Consumption MMBtu	Avg. Cost per gallon-Mcf	KWh per gallon-Mcf	Fuel Cost \$ per kWh	Source
Alaska Village Electric Coop		Hooper Bay	Jet Fuel	IC	2,745	4,773	27,804	2.48	14	0.18	PCE
Alaska Village Electric Coop		Huslia	Distillate Fuel Oil	IC	949	1,673	9,748	3.21	13	0.24	PCE
Alaska Village Electric Coop		Kaltag	Distillate Fuel Oil	IC	761	1,277	7,441	3.03	14	0.21	PCE
Alaska Village Electric Coop		Marshall	Distillate Fuel Oil	IC	1,237	2,088	12,161	2.56	14	0.18	PCE
Alaska Village Electric Coop		Minto	Distillate Fuel Oil	IC	638	1,245	7,254	2.28	12	0.19	PCE
Alaska Village Electric Coop		Mountain Village	Jet Fuel	IC	2,679	4,397	25,613	2.53	15	0.17	PCE
Alaska Village Electric Coop		Nulato	Distillate Fuel Oil	IC	1,075	1,903	11,082	2.98	13	0.22	PCE
Alaska Village Electric Coop		Pilot Station	Distillate Fuel Oil	IC	1,632	3,022	17,603	2.46	13	0.19	PCE
Alaska Village Electric Coop		Pitkas Point	Distillate Fuel Oil	IC				2.48			PCE
Alaska Village Electric Coop		Russian Mission	Distillate Fuel Oil	IC	837	1,453	8,466	2.46	14	0.18	PCE
Alaska Village Electric Coop		Saint Marys	Jet Fuel	IC	2,934	4,982	29,019	2.48	14	0.18	PCE
Alaska Village Electric Coop		Scammon Bay	Distillate Fuel Oil	IC	1,731	3,099	18,054	2.79	13	0.21	PCE
Alaska Village Electric Coop		Shageluk	Distillate Fuel Oil	IC	386	812	4,728	3.07	11	0.27	PCE
Aurora Energy LLC	Aurora Energy LLC Chena	Fairbanks	Sub-bituminous Coal	ST	177,106	216,972	3,254,580		816		EIA
Beaver Joint Utilities		Beaver	Distillate Fuel Oil	IC		728	4,238	3.80			PCE
Central Electric Inc		Central	Distillate Fuel Oil	IC	485	1,071	6,236	3.01	11	0.28	PCE
Circle Electric Utility		Circle	Distillate Fuel Oil	IC	342	776	4,521	3.09	10	0.29	PCE
City of Galena		Galena	Distillate Fuel Oil	IC	7,772	13,686	79,720	2.90	14	0.21	PCE
City of Koyukuk		Koyukuk	Distillate Fuel Oil	IC	97	222	1,295	3.78	10	0.36	PCE
City of Ruby		Ruby	Distillate Fuel Oil	IC		629	3,661	3.30			PCE
Golden Valley Elec Assn Inc	Delta Power	Delta Junction*	Distillate Fuel Oil	GT	-144	126	696		-27		EIA
Golden Valley Elec Assn Inc	Fairbanks	Fairbanks	Distillate Fuel Oil	GT	101	454	2,501		5		EIA
Golden Valley Elec Assn Inc	Fairbanks	Fairbanks	Distillate Fuel Oil	IC	-9	192	1,060		-1		EIA
Golden Valley Elec Assn Inc	Fairbanks	Fairbanks	Residual Fuel Oil	GT	5,238	22,028	129,967		6		EIA
Golden Valley Elec Assn Inc	Healy	Healy	Distillate Fuel Oil	IC							EIA

Table 2.3c Net Generation (MWh), Fuel Use, and Fuel Cost by Plant*, 2008

Utility Name	Plant Name	Community	Fuel Type	Prime Mover ⁽²⁾	Net Generation MWh	Fuel Use ⁽³⁾	Total Fuel Consumption MMBtu	Avg. Cost per gallon-Mcf	KWh per gallon-Mcf	Fuel Cost \$ per kWh	Source
Golden Valley Elec Assn Inc	Healy	Healy	Distillate Fuel Oil	ST	215	498	2,840		10		EIA
Golden Valley Elec Assn Inc	Healy	Healy	Sub-bituminous Coal	ST	220,360	210,256	2,921,670		1,048		EIA
Golden Valley Elec Assn Inc	North Pole	North Pole	Distillate Fuel Oil	GT	3,946	6,090	33,497	2.75	15	0.18	EIA
Golden Valley Elec Assn Inc	North Pole	North Pole	Naphtha	GT	387,340	621,233	2,992,519	2.52	15	0.17	EIA
Golden Valley Elec Assn Inc	North Pole	North Pole	HAGO	GT	121,430	175,056	1,028,021	2.72	17	0.16	EIA
Gwitchyaa Zhee Utilities Co		Fort Yukon	Distillate Fuel Oil	IC	3,009	4,313	25,126	3.26	17	0.20	PCE
Hughes Power & Light		Hughes	Distillate Fuel Oil	IC	296	562	3,274	4.97	13	0.40	PCE
Kotlik Joint Utility		Kotlik	Distillate Fuel Oil	IC	1,818	3,456	20,131	2.60	13	0.21	PCE
Manley Utilities		Manley Hot Springs	Distillate Fuel Oil	IC	293	661	3,847	2.93	11	0.28	PCE
Nunam Iqua Electric Company		Nunam Iqua	Distillate Fuel Oil	IC	820	1,547	9,012	3.22	13	0.26	PCE
Stevens Village Ira Council		Stevens Village	Distillate Fuel Oil	IC	286	630	3,668	3.89	11	0.36	PCE
Tanana Power Company Inc		Tanana	Distillate Fuel Oil	IC	1,264	2,238	13,035	2.80	13	0.21	PCE
Venetie Village Electric		Venetie	Distillate Fuel Oil	IC	260	468	2,725	3.82	13	0.29	PCE

* Note that this table only includes net generation from fossil fuels. Hydroelectric and wind generation are not included.

(1) This is a statistical adjustment made by EIA. Plants that did not respond to EIA's survey or data that could not be verified are estimated. The estimates are rolled-into state/fuel aggregates with a "99999" plant code.

(2) CA=Combined Cycle, steam part; CT=Combined Cycle, turbine part; GT=Gas Turbine; IC=Internal Combustion Engine; ST= Steam Turbine; OT=Other.

(3) Distillate Fuel Oil, Jet Fuel, Residual Fuel Oil, Naphtha and HAGO in Barrels; Natural Gas in Mcf; Sub-bituminous Coal in Short Tons. HAGO is an acronym for Heavy Atmospheric Gas Oil.

SALES, REVENUE AND CUSTOMERS

Table 2.4a Utility Sales, Revenue and Customers, 2008

Utility Name	Community	Residential			Commercial			Other			Total			Source
		Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	
State		354,168	2,135,985	270,712	550,166	4,084,164	46,292	38,900	85,440	3,553	943,234	6,305,589	320,558	
Arctic Northwest		16,366	48,806	8,098	26,336	98,066	1,661	8,721	19,326	628	51,424	166,198	10,387	
South Central		204,246	1,403,873	179,635	263,432	2,431,296	25,693	1,919	4,965	187	469,597	3,840,134	205,515	
South East		43,194	306,258	31,729	52,867	420,117	8,268	3,525	11,531	544	99,586	737,907	40,541	
South West		22,410	46,235	9,393	43,722	93,496	3,110	15,644	32,019	1,506	81,777	171,749	14,009	
Yukon		67,952	330,813	41,858	163,809	1,041,189	7,560	9,091	17,599	688	240,852	1,389,601	50,106	
Arctic Northwest		16,366	48,806	8,098	26,336	98,066	1,661	8,721	19,326	628	51,424	166,198	10,387	
Alaska Village Electric Coop	Ambler	315	387	87	264	325	11	397	488	17	976	1,200	116	PCE
Alaska Village Electric Coop	Brevig Mission	213	417	96	111	217	6	169	330	17	492	963	119	PCE
Alaska Village Electric Coop	Elim	216	430	97	156	312	11	149	298	20	521	1,040	127	PCE
Alaska Village Electric Coop	Gambell	376	711	172	249	469	15	291	550	20	916	1,730	207	PCE
Alaska Village Electric Coop	Kiana	374	660	130	269	474	10	236	418	21	879	1,552	161	PCE
Alaska Village Electric Coop	Kivalina	281	491	84	194	339	8	189	330	13	664	1,160	105	PCE
Alaska Village Electric Coop	Koyuk	277	539	95	173	337	12	220	428	20	670	1,305	127	PCE
Alaska Village Electric Coop	Noatak	524	705	117	516	693	12	379	509	15	1,419	1,907	143	PCE
Alaska Village Electric Coop	Noorvik	544	949	166	202	353	11	316	552	14	1,062	1,853	190	PCE
Alaska Village Electric Coop	Saint Michael	347	690	109	261	519	15	274	545	16	882	1,753	140	PCE
Alaska Village Electric Coop	Savoonga	434	829	167	363	692	18	291	556	25	1,088	2,077	209	PCE

Table 2.4a Utility Sales, Revenue and Customers, 2008

Utility Name	Community	Residential			Commercial			Other			Total			Source
		Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	
Alaska Village Electric Coop	Selawik	566	1,044	197	337	621	17	738	1,362	29	1,640	3,027	243	PCE
Alaska Village Electric Coop	Shaktoolik	195	392	69	115	230	10	83	166	11	393	789	90	PCE
Alaska Village Electric Coop	Shishmaref	344	723	153	237	499	18	174	366	20	755	1,588	191	PCE
Alaska Village Electric Coop	Shungnak	266	364	61	560	767	11	179	246	13	1,005	1,377	85	PCE
Alaska Village Electric Coop	Stebbins	282	541	147	241	461	14	178	340	16	700	1,343	177	PCE
Alaska Village Electric Coop	Teller	176	296	82	174	292	14	136	228	12	486	817	108	PCE
Alaska Village Electric Coop	Wales	117	222	53	75	142	11	72	138	10	264	502	74	PCE
Barrow Utils & Elect Coop Inc	Barrow	1,366	10,827	1,429	3,562	35,411	394				4,928	46,238	1,823	EIA
City of Buckland C/O City of White Mountain	Buckland	249	537	84	319	688	16	41	89	9	609	1,314	109	PCE
Diomedea Joint Utilities	Diomedea	85	141	49	116	194	12	35	58	8	236	393	69	PCE
Golovin Power Utilities	Golovin	121	209	55	102	176	25	77	132	15	300	516	95	PCE
Ipitchiaq Electric Company	Deering	131	207	43	167	265	7	117	186	14	415	658	64	PCE
Kobuk Valley Electric Company	Kobuk	61	84	31	69	96	10	90	124	9	220	303	51	PCE
Kotzebue Electric Association	Kotzebue	3,028	7,738	975	3,820	9,763	107	1,128	2,881	93	7,976	20,382	1,175	PCE
Nome Joint Utility System	Nome	3,228	9,680	1,660	7,083	21,237	275	2,374	7,117	129	12,685	38,033	2,064	PCE
North Slope Borough	Anaktuvuk Pass	1,515	7,278	1,343	5,715	20,425	527				7,230	27,703	1,870	EIA
Unalakleet Valley Electric Coop	Unalakleet	567	1,481	280	684	1,787	45	286	746	31	1,537	4,014	357	PCE
South Central		204,246	1,403,873	179,635	263,432	2,431,296	25,693	1,919	4,965	187	469,597	3,840,134	205,515	
Alaska Village Electric Coop	Old Harbor	172	346	101	66	133	14	81	163	15	319	642	129	PCE

Table 2.4a Utility Sales, Revenue and Customers, 2008

Utility Name	Community	Residential			Commercial			Other			Total			Source
		Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	
Alutiiq Power Company	Karluk	46	76	14	69	115	10	25	41	6	140	233	30	PCE
Anchorage Municipal Light & Power	MULTIPLE	15,375	147,725	24,108	74,170	971,027	6,243				89,545	1,118,752	30,351	EIA
Chenega Ira Council	Chenega Bay	30	69	24	27	62	11	12	27	11	69	158	46	PCE
Chitina Electric Inc	Chitina	97	173	51	102	180	21	21	38	5	220	391	77	PCE
Chugach Electric Assn Inc	MULTIPLE	80,307	560,757	69,685	77,242	645,075	8,967				157,549	1,205,832	78,652	EIA
City of Ouzinkie	Ouzinkie	97	263	72	72	195	8	34	93	7	203	551	87	PCE
Copper Valley Elec Assn Inc	MULTIPLE	4,074	16,648	2,918	11,714	56,011	778				15,788	72,659	3,696	EIA
Cordova Electric	Cordova	1,761	4,678	791	5,467	14,525	516	1,613	4,286	116	8,841	23,490	1,423	PCE
Homer Electric Assn Inc	MULTIPLE	30,087	180,989	24,254	38,881	341,038	3,637				68,968	522,027	27,891	EIA
Kodiak Electric Assn Inc	MULTIPLE	6,306	32,883	4,649	18,245	103,389	1,168				24,551	136,272	5,817	EIA
Larsen Bay Utility Company	Larsen Bay	38	94	44	105	264	35	48	119	13	191	477	92	PCE
Matanuska Electric Assn Inc	MULTIPLE	63,123	442,498	50,887	31,320	258,426	3,673				94,443	700,924	54,560	EIA
Seward City of	Seward	2,671	16,528	2,000	5,933	40,811	602				8,604	57,339	2,602	EIA
Tatitlek Village Ira Council	Tatitlek	63	146	37	19	45	10	85	197	15	167	388	62	PCE
South East		43,194	306,258	31,729	52,867	420,117	8,268	3,525	11,531	544	99,586	737,907	40,541	
Alaska Electric Light & Power	MULTIPLE	19,482	128,495	13,699	22,680	181,681	2,219				42,162	310,176	15,918	EIA
Alaska Power & Telephone Company	Coffman Cove	272	486	129	102	182	27	73	131	16	448	798	172	PCE
Alaska Power & Telephone Company	Craig	868	3,742	624	917	3,954	295	492	2,118	73	2,277	9,815	992	PCE
Alaska Power & Telephone Company	Haines	1,140	5,264	1,024	1,127	5,203	313	445	2,054	45	2,711	12,522	1,381	PCE

Table 2.4a Utility Sales, Revenue and Customers, 2008

Utility Name	Community	Residential			Commercial			Other			Total			Source
		Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	
Alaska Power & Telephone Company	Hollis	121	521	109	61	264	11	13	56	9	195	841	130	PCE
Alaska Power & Telephone Company	Hydaburg	167	734	123	52	227	31	116	508	19	334	1,468	173	PCE
Alaska Power & Telephone Company	Klawock	466	2,007	320	1,389	5,988	106	195	841	35	2,050	8,836	461	PCE
Alaska Power & Telephone Company	Naukati Bay	149	301	58	41	83	9	38	77	1	228	461	68	PCE
Alaska Power & Telephone Company	Skagway	654	3,050	550	1,580	7,374	415	462	2,157	82	2,696	12,581	1,046	PCE
Alaska Power & Telephone Company	Thorne Bay	283	1,242	255	194	854	78	217	953	60	694	3,049	392	PCE
Alaska Power & Telephone Company	Whale Pass	84	146	58	41	70	8	6	10	4	131	226	70	PCE
City of Petersburg	Petersburg	1,808	17,767	1,368	2,961	26,742	735				4,769	44,509	2,103	EIA
City of Tenakee Springs	Tenakee Springs	114	229	124	38	76	26	19	39	14	171	344	164	PCE
City of Wrangell	Wrangell	1,135	10,800	1,058	1,436	13,833	511				2,571	24,633	1,569	EIA
Elfin Cove Utility Commission	Elfin Cove	51	97	38	119	225	19	7	12	7	177	334	64	PCE
Gustavus Electric Co	Gustavus	568	771	391	344	467	103	241	327	39	1,152	1,565	533	PCE
Inside Passage Electric	Angoon	540	939	190	306	533	25	111	194	13	957	1,667	227	PCE
Inside Passage Electric	Haines	380	662	196	333	579	29	5	9	6	718	1,250	231	PCE
Inside Passage Electric	Hoonah	1,071	1,865	354	1,178	2,051	66	422	734	43	2,671	4,650	463	PCE
Inside Passage Electric	Kake	620	1,080	246	587	1,021	59	107	187	16	1,314	2,287	321	PCE
Inside Passage Electric	Klukwan	123	212	47	59	101	7	23	40	7	205	353	61	PCE
Ketchikan Public Utilities	MULTIPLE	6,981	68,287	6,166	8,543	91,053	1,180				15,524	159,340	7,346	EIA

Table 2.4a Utility Sales, Revenue and Customers, 2008

Utility Name	Community	Residential			Commercial			Other			Total			Source
		Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	
Metlakatla Power & Light	Metlakatla	659	6,956	604	1,016	8,730	276				1,675	15,686	880	EIA
Pelican Utility	Pelican	77	467	74	161	1,028	53				238	1,495	127	EIA
Sitka City & Borough of	Sitka	4,620	48,589	3,650	5,890	64,317	1,582				10,510	112,906	5,232	EIA
Yakutat Power Inc	Yakutat	762	1,550	276	1,712	3,481	87	533	1,083	56	3,006	6,113	418	PCE
South West		22,410	46,235	9,393	43,722	93,496	3,110	15,644	32,019	1,506	81,777	171,749	14,009	
Akiachak Native Community	Akiachak	335	587	154	135	236	24	482	844	40	952	1,667	217	PCE
Akiak City Council	Akiak	148	252	82	295	504	22	158	270	13	600	1,026	117	PCE
Alaska Village Electric Coop	Eek	176	323	94	111	203	11	113	208	16	400	734	120	PCE
Alaska Village Electric Coop	Goodnews Bay	173	323	86	92	171	10	89	167	12	355	661	108	PCE
Alaska Village Electric Coop	Kalskag	145	297	66	64	131	8	88	178	16	297	606	90	PCE
Alaska Village Electric Coop	Kasigluk	261	596	118	170	388	15	129	295	17	560	1,279	151	PCE
Alaska Village Electric Coop	Lower Kalskag	142	291	88	51	105	4	59	122	7	252	518	98	PCE
Alaska Village Electric Coop	Mekoryuk	150	290	94	146	282	21	134	259	16	430	830	131	PCE
Alaska Village Electric Coop	New Stuyahok	341	634	127	340	633	18	142	263	16	822	1,530	160	PCE
Alaska Village Electric Coop	Nightmute	149	296	55	81	161	12	64	126	13	295	583	79	PCE
Alaska Village Electric Coop	Nunapitchuk	266	608	127	165	376	20	97	221	13	528	1,205	159	PCE
Alaska Village Electric Coop	Quinhagak	377	704	170	421	785	16	210	391	16	1,008	1,880	203	PCE
Alaska Village Electric Coop	Togiak	597	1,216	270	351	715	18	285	579	26	1,234	2,510	313	PCE
Alaska Village Electric Coop	Toksook Bay	272	648	134	202	482	15	126	302	19	600	1,431	168	PCE
Alaska Village Electric Coop	Tununak	174	415	91	101	242	12	92	219	15	367	875	118	PCE
Aniak Light & Power	Aniak	681	929	173	523	713	31	387	528	10	1,592	2,170	214	PCE

Table 2.4a Utility Sales, Revenue and Customers, 2008

Utility Name	Community	Residential			Commercial			Other			Total			Source
		Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	
Atmautluak Tribal Utilities	Atmautluak	176	274	67	54	84	6	102	159	13	331	517	86	PCE
Bethel Utilities Corporation	Bethel	4,997	10,139	1,616	12,307	24,971	1,146	2,200	4,463	58	19,503	39,573	2,819	PCE
Chignik Lagoon Power Utility	Chignik Lagoon	117	259	49	72	158	9	45	99	12	234	516	70	PCE
Chignik Lake Electric Utility	Chignik Lake	79	137	34	42	73	8	13	24	6	134	234	48	PCE
City of Akutan	Akutan	66	204	39	66	205	17	39	121	12	171	530	68	PCE
City of Atka	Atka	91	146	30	96	154	12	47	75	21	234	375	63	PCE
City of Chignik	Chignik	107	185	50	131	227	21	71	123	12	309	535	83	PCE
City of Ekwok	Ekwok	109	217	52	104	207	14	68	135	8	280	559	74	PCE
City of King Cove	King Cove	221	920	184	473	1,970	58	267	1,111	49	960	4,001	291	PCE
City of Nikolai	Nikolai	87	136	33	39	61	5	52	81	13	178	278	50	PCE
City of Platinum	Platinum	20	40	27	11	21	6	27	54	13	57	115	46	PCE
City of Unalaska	Unalaska	1,831	3,967	688	12,828	27,792	178	1,757	3,807	72	16,416	35,567	938	PCE
Egegik Light & Power Co	Egegik	87	121	40	242	336	17	120	166	22	449	623	78	PCE
G & K Inc	Cold Bay	130	191	36	674	993	25	963	1,420	54	1,767	2,604	116	PCE
Igiugig Electric Company	Igiugig	34	56	17	45	73	8	45	73	14	124	202	39	PCE
I-N-N Electric Coop Inc	Iliamna, Newhalen, Nondalton	616	1,094	203	729	1,295	87	277	492	25	1,621	2,881	315	PCE
Kipnuk Light Plant	Kipnuk	404	830	161	173	355	19	141	289	64	717	1,474	244	PCE
Kokhanok Village Council	Kokhanok	132	178	48	32	43	5	138	187	15	301	409	68	PCE
Kwethluk Incorporated	Kwethluk	294	649	172	118	260	6	111	246	32	524	1,155	210	PCE
Kwigillingok Power Company	Kwigillingok	207	414	85	141	282	16	44	88	8	392	785	108	PCE
Levelock Electrical Coop	Levelock	70	135	48	28	54	8	73	141	12	170	330	68	PCE
Lime Village Electric Utility	Lime Village	21	18	19	25	22	3	26	22	6	72	62	29	PCE

Table 2.4a Utility Sales, Revenue and Customers, 2008

Utility Name	Community	Residential			Commercial			Other			Total			Source
		Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	
Manokotak Power Company	Manokotak	180	455	128	35	89	14	230	582	23	445	1,126	165	PCE
Mcgrath Light & Power	McGrath	366	688	155	506	952	60	469	882	47	1,340	2,522	262	PCE
Middle Kuskokwim Electric	Chuathbaluk	77	99	41	67	87	6	25	32	8	170	219	55	PCE
Middle Kuskokwim Electric	Crooked Creek	89	114	38	68	88	8	36	46	8	192	248	54	PCE
Middle Kuskokwim Electric	Red Devil	39	50	19	54	69	5	9	12	4	102	131	28	PCE
Middle Kuskokwim Electric	Sleetmute	79	102	42	42	54	7	53	68	6	173	223	55	PCE
Middle Kuskokwim Electric	Stony River	34	44	24	40	51	5	15	20	4	89	115	33	PCE
Naknek Electric	Naknek	1,599	3,931	740	4,516	11,100	274	2,206	5,423	158	8,322	20,454	1,172	PCE
Napakia Ircinraq	Napakia	228	350	98	76	116	10	49	75	16	352	541	123	PCE
Napaskiak Electric Utility	Napaskiak	282	483	77	109	186	13	62	106	20	452	775	110	PCE
Naterkaq Light Plant	Chefomak	251	436	85	65	113	6	195	339	42	511	888	132	PCE
Native Village of Perryville	Perryville	101	252	45	28	46	10	0	0	0	129	298	55	EIA
Nelson Lagoon Electrical Coop	Nelson Lagoon	94	180	47	78	150	11	28	54	12	200	385	70	PCE
New Koliganek Village Council	Koliganek	103	206	74	29	58	7	131	261	23	263	525	104	PCE
Nushagak Electric	Dillingham	2,114	5,754	970	3,584	9,755	372	667	1,815	97	6,366	17,324	1,440	PCE
Pedro Bay Village Council	Pedro Bay	48	70	21	83	122	7	27	39	6	157	231	34	PCE
Pilot Point Electric Utility	Pilot Point	78	156	35	54	108	12	54	108	14	186	373	61	PCE
Puvuruaq Power Company	Kongiganak	254	499	94	168	331	14	58	113	14	480	944	122	PCE
St. Paul Municipal Electric	Saint Paul	434	804	145	743	1,377	33	1,385	2,566	57	2,562	4,747	235	PCE
Takotna Community Assoc Inc	Takotna	44	58	23	89	118	13	39	52	8	173	228	44	PCE

Table 2.4a Utility Sales, Revenue and Customers, 2008

Utility Name	Community	Residential			Commercial			Other			Total			Source
		Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	
Tanalien Electric Cooperative	Port Alsworth	155	228	54	163	240	37	55	81	17	373	548	108	PCE
TDX Adak Generating LLC	Adak	59	80	251	68	91	35	26	34	13	152	205	299	PCE
TDX Corporation	Sand Point	887	1,557	287	1,000	1,755	157	412	724	47	2,299	4,037	490	PCE
Tuluksak Traditional	Tuluksak	149	248	85	84	139	9	33	55	11	266	443	105	PCE
Tuntutuliak Community	Tuntutuliak	197	379	87	160	308	26	29	57	17	387	744	130	PCE
Twin Hills Village Council	Twin Hills	60	110	28	13	24	4	41	75	12	115	209	44	PCE
Umnak Power Company	Nikolski	34	59	15	90	157	13	17	30	6	142	246	34	PCE
Ungusraq Power Company	Newtok	96	127	66	35	47	15	15	19	10	145	192	92	PCE
Yukon		67,952	330,813	41,858	163,809	1,041,189	7,560	9,091	17,599	688	240,852	1,389,601	50,106	
Alaska Power & Telephone Company	Allakaket	155	206	74	120	159	18	189	252	16	464	617	108	PCE
Alaska Power & Telephone Company	Bettles	112	168	29	56	85	13	202	303	18	370	555	59	PCE
Alaska Power & Telephone Company	Chistochina	102	155	44	70	106	15	30	46	3	202	307	62	PCE
Alaska Power & Telephone Company	Dot Lake	46	103	26	46	105	12	65	148	6	157	356	44	PCE
Alaska Power & Telephone Company	Eagle	224	359	146	68	108	27	121	193	21	413	661	195	PCE
Alaska Power & Telephone Company	Healy Lake	16	20	9	23	29	9	22	28	4	61	78	22	PCE
Alaska Power & Telephone Company	Mentasta Lake	70	95	33	46	63	9	86	117	8	202	275	50	PCE
Alaska Power & Telephone Company	Northway	218	346	92	431	681	32	186	294	11	835	1,322	135	PCE

Table 2.4a Utility Sales, Revenue and Customers, 2008

Utility Name	Community	Residential			Commercial			Other			Total			Source
		Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	
Alaska Power & Telephone Company	Slana	130	196	65	54	81	8	89	133	6	273	410	79	PCE
Alaska Power & Telephone Company	Tetlin	71	162	47	8	17	5	63	142	6	142	321	58	PCE
Alaska Power & Telephone Company	Tok	1,696	3,835	726	1,309	2,959	171	1,451	3,280	52	4,455	10,074	949	PCE
Alaska Village Electric Coop	Alakanuk	401	763	161	232	441	11	287	547	16	920	1,751	188	PCE
Alaska Village Electric Coop	Anvik	108	187	47	41	70	10	85	146	17	234	404	73	PCE
Alaska Village Electric Coop	Chevak	508	964	199	329	624	13	316	599	22	1,153	2,186	235	PCE
Alaska Village Electric Coop	Emmonak	559	1,100	228	472	929	30	417	820	25	1,448	2,849	284	PCE
Alaska Village Electric Coop	Grayling	102	177	57	77	134	7	120	207	15	299	518	79	PCE
Alaska Village Electric Coop	Holy Cross	170	303	79	56	100	9	107	191	14	334	595	102	PCE
Alaska Village Electric Coop	Hooper Bay	485	969	257	470	940	23	387	774	25	1,342	2,683	304	PCE
Alaska Village Electric Coop	Huslia	258	468	106	66	119	9	165	299	20	489	886	135	PCE
Alaska Village Electric Coop	Kaltag	159	298	80	96	181	12	109	205	15	364	684	107	PCE
Alaska Village Electric Coop	Marshall	276	539	104	169	330	14	174	340	20	619	1,209	139	PCE
Alaska Village Electric Coop	Minto	142	290	80	46	93	10	100	204	10	287	587	99	PCE
Alaska Village Electric Coop	Mountain Village	483	974	199	393	793	16	395	796	24	1,271	2,563	239	PCE
Alaska Village Electric Coop	Nulato	255	457	116	95	169	10	197	352	23	547	978	149	PCE
Alaska Village Electric Coop	Pilot Station	387	733	141	232	439	9	234	443	16	853	1,615	166	PCE
Alaska Village Electric Coop	Pitkas Point	59	118	31	41	82	3	59	117	5	160	317	39	PCE
Alaska Village Electric Coop	Russian Mission	182	353	72	107	207	8	126	244	12	415	805	92	PCE

Table 2.4a Utility Sales, Revenue and Customers, 2008

Utility Name	Community	Residential			Commercial			Other			Total			Source
		Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	Revenue (\$000)	Sales (MWh)	Customers (Accounts)	
Alaska Village Electric Coop	Saint Marys	406	805	195	504	998	33	374	741	26	1,284	2,544	254	PCE
Alaska Village Electric Coop	Scammon Bay	351	632	120	306	552	14	271	489	19	928	1,674	152	PCE
Alaska Village Electric Coop	Shageluk	78	124	47	64	102	5	68	109	9	209	336	62	PCE
Beaver Joint Utilities	Beaver	48	92	40	43	82	9	39	75	14	131	249	63	PCE
Birch Creek Village Elec Util	Birch Creek	13	21	18	36	59	3	0	0	0	49	80	21	EIA
Central Electric Inc	Central	132	237	124	35	63	10	60	108	8	228	408	141	PCE
Chalkyitsik Village Council	Chalkyitsik	21	23	43	12	12	6	63	66	13	96	101	62	PCE
Circle Electric Utility	Circle	58	93	31	52	82	7	72	115	5	182	290	43	PCE
City of Galena	Galena	476	1,082	222	921	2,096	97	1,046	2,381	41	2,442	5,559	361	PCE
City of Koyukuk	Koyukuk	36	80	45	18	40	4	23	52	10	77	172	60	PCE
City of Ruby	Ruby	195	205	129	207	217	15	105	110	20	506	532	164	PCE
Golden Valley Elec Assn Inc	MULTIPLE	57,380	310,579	36,860	154,838	1,024,144	6,678				212,218	1,334,723	43,538	EIA
Gwitchyaa Zhee Utilities Co	Fort Yukon	543	1,065	308	469	921	76	420	824	24	1,433	2,809	408	PCE
Hughes Power & Light	Hughes	62	104	34	52	87	8	41	70	6	155	260	48	PCE
Kotlik Joint Utility	Kotlik	402	704	139	249	436	14	268	469	18	919	1,610	171	PCE
Manley Utilities	Manley Hot Springs	74	111	75	73	110	11	15	23	5	162	243	91	PCE
Nunam Iqua Electric Company	Nunam Iqua	83	178	43	211	452	6	126	269	14	420	899	63	PCE
Paxson Inn & Lodge	Paxson	0	0	0	240	180	6	0	0	0	240	180	6	EIA
Stevens Village Ira Council	Stevens Village	48	54	28	76	85	5	102	114	10	226	252	43	PCE
Tanana Power Company Inc	Tanana	171	288	111	253	426	38	215	362	18	639	1,077	166	PCE

Note: Revenue for PCE data was calculated by multiplying Sales (MWh) by the average rate \$/KWh. PCE data does not include average cents per kWh for commercial or other categories, the residential rate is assumed.

Table 2.4b Average Annual Energy Use and Cost, 2008

Utility Name	Community	Residential			Commercial			Other			Source
		kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	
State*		7,675	1,282	0.17	96,053	12,574	0.13	25,558	13,065	0.47	
Arctic Northwest*		6,027	2,021	0.33	59,055	15,859	0.27	34,749	13,879	0.45	
South Central*		7,815	1,137	0.15	94,629	10,253	0.11	26,492	10,238	0.39	
South East*		7,815	1,137	0.15	94,629	10,253	0.11	26,492	10,238	0.39	
South West*		4,922	2,386	0.48	30,060	14,057	0.47	21,265	10,390	0.49	
Yukon*		7,903	1,623	0.21	137,726	21,668	0.16	25,564	21,173	0.52	
Arctic Northwest		6,027	2,021	0.33	59,055	15,859	0.27	34,749	13,879	0.45	
Alaska Village Electric Coop	Ambler	4,440	3,610	0.81	28,685	23,325	0.81	28,147	22,888	0.81	PCE
Alaska Village Electric Coop	Brevig Mission	4,329	2,213	0.51	35,609	18,201	0.51	19,999	10,222	0.51	PCE
Alaska Village Electric Coop	Elim	4,434	2,221	0.50	29,462	14,760	0.50	15,143	7,586	0.50	PCE
Alaska Village Electric Coop	Gambell	4,129	2,187	0.53	32,185	17,043	0.53	27,271	14,440	0.53	PCE
Alaska Village Electric Coop	Kiana	5,072	2,871	0.57	48,244	27,314	0.57	19,576	11,083	0.57	PCE
Alaska Village Electric Coop	Kivalina	5,878	3,366	0.57	42,866	24,546	0.57	24,878	14,246	0.57	PCE
Alaska Village Electric Coop	Koyuk	5,654	2,904	0.51	29,337	15,068	0.51	21,502	11,044	0.51	PCE
Alaska Village Electric Coop	Noatak	6,001	4,466	0.74	60,283	44,857	0.74	35,082	26,105	0.74	PCE
Alaska Village Electric Coop	Noorvik	5,733	3,285	0.57	32,344	18,532	0.57	40,607	23,267	0.57	PCE
Alaska Village Electric Coop	Saint Michael	6,355	3,197	0.50	34,188	17,200	0.50	33,346	16,777	0.50	PCE
Alaska Village Electric Coop	Savoonga	4,971	2,603	0.52	39,193	20,528	0.52	22,294	11,677	0.52	PCE
Alaska Village Electric Coop	Selawik	5,293	2,868	0.54	36,191	19,609	0.54	47,370	25,665	0.54	PCE
Alaska Village Electric Coop	Shaktolik	5,691	2,836	0.50	23,434	11,680	0.50	15,313	7,632	0.50	PCE
Alaska Village Electric Coop	Shishmaref	4,710	2,240	0.48	27,737	13,192	0.48	18,605	8,848	0.48	PCE
Alaska Village Electric Coop	Shungnak	5,959	4,349	0.73	69,743	50,903	0.73	19,023	13,884	0.73	PCE
Alaska Village Electric Coop	Stebbins	3,681	1,919	0.52	32,186	16,783	0.52	21,501	11,212	0.52	PCE
Alaska Village Electric Coop	Teller	3,606	2,144	0.59	21,006	12,488	0.59	18,893	11,232	0.59	PCE
Alaska Village Electric Coop	Wales	4,165	2,191	0.53	13,541	7,123	0.53	13,779	7,249	0.53	PCE
Barrow Utils & Elec Coop Inc	Barrow	7,577	956	0.13	89,876	9,041	0.10				EIA
City of Buckland C/O	Buckland	6,393	2,965	0.46	43,006	19,944	0.46	9,904	4,593	0.46	PCE

Table 2.4b Average Annual Energy Use and Cost, 2008

Utility Name	Community	Residential			Commercial			Other			Source
		kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	
City of White Mountain	White Mountain	3,577	2,576	0.72	13,754	9,903	0.72	12,101	8,712	0.72	PCE
Diomed Joint Utilities	Diomed	2,887	1,732	0.60	16,158	9,695	0.60	7,003	4,202	0.60	PCE
Golovin Power Utilities	Golovin	3,803	2,206	0.58	7,023	4,073	0.58	8,630	5,005	0.58	PCE
Ipnachiaq Electric Company	Deering	4,774	3,016	0.63	38,293	24,187	0.63	13,593	8,585	0.63	PCE
Kobuk Valley Electric Company	Kobuk	2,670	1,934	0.72	9,580	6,939	0.72	13,328	9,654	0.72	PCE
Kotzebue Electric Association	Kotzebue	7,936	3,106	0.39	91,240	35,704	0.39	30,982	12,124	0.39	PCE
Nome Joint Utility System	Nome	5,832	1,945	0.33	77,177	25,740	0.33	55,170	18,400	0.33	PCE
North Slope Borough	Anaktuvuk Pass	5,419	1,128	0.20	38,757	10,844	0.27				EIA
Unalakleet Valley Electric	Unalakleet	5,284	2,023	0.38	39,481	15,116	0.38	23,877	9,142	0.38	PCE
South Central		7,815	1,137	0.15	94,629	10,253	0.11	26,492	10,238	0.39	
Alaska Village Electric Coop	Old Harbor	3,431	1,702	0.50	9,797	4,861	0.50	10,918	5,417	0.50	PCE
Alutiiq Power Company	Karluk	5,588	3,353	0.60	11,125	6,675	0.60	6,876	4,125	0.60	PCE
Anchorage Municipal Light & Power	Anchorage	6,128	638	0.10	155,539	11,881	0.08				EIA
Chenega Ira Council	Chenega Bay	2,864	1,242	0.43	5,478	2,376	0.43	2,599	1,127	0.43	PCE
Chitina Electric Inc	Chitina	3,394	1,914	0.56	8,759	4,940	0.56	6,971	3,931	0.56	PCE
Chugach Electric Assn Inc	Multiple	8,047	1,152	0.14	71,939	8,614	0.12				EIA
City of Ouzinkie	Ouzinkie	3,651	1,345	0.37	23,631	8,706	0.37	13,805	5,086	0.37	PCE
Copper Valley Elec Assn Inc	Multiple	5,705	1,396	0.24	71,994	15,057	0.21				EIA
Cordova Electric	Cordova	5,911	2,225	0.38	28,177	10,605	0.38	36,924	13,897	0.38	PCE
Homer Electric Assn Inc	Multiple	7,462	1,240	0.17	93,769	10,690	0.11				EIA
Kodiak Electric Assn Inc	Multiple	7,073	1,356	0.19	88,518	15,621	0.18				EIA
Larsen Bay Utility Company	Larsen Bay	2,155	862	0.40	7,475	2,990	0.40	9,355	3,742	0.40	PCE
Matanuska Electric Assn Inc	Multiple	8,696	1,240	0.14	70,358	8,527	0.12				EIA
Seward City of	Seward	8,264	1,336	0.16	67,792	9,855	0.15				EIA
Tatitlek Village Ira Council	Tatitlek	3,949	1,698	0.43	4,454	1,915	0.43	13,142	5,651	0.43	PCE
South East		9,652	1,361	0.14	52,713	6,596	0.13	21,217	6,485	0.31	

Table 2.4b Average Annual Energy Use and Cost, 2008

Utility Name	Community	Residential			Commercial			Other			Source
		kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	
Alaska Electric Light & Power Co	Multiple	9,380	1,422	0.15	81,875	10,221	0.12				EIA
Alaska Power & Telephone Company	Coffman Cove	3,777	2,118	0.56	6,675	3,742	0.56	7,958	4,461	0.56	PCE
Alaska Power & Telephone Company	Craig	6,000	1,392	0.23	13,414	3,113	0.23	29,019	6,734	0.23	PCE
Alaska Power & Telephone Company	Haines	5,140	1,113	0.22	16,642	3,603	0.22	46,168	9,996	0.22	PCE
Alaska Power & Telephone Company	Hollis	4,762	1,105	0.23	23,640	5,485	0.23	6,056	1,405	0.23	PCE
Alaska Power & Telephone Company	Hydaburg	5,974	1,359	0.23	7,276	1,656	0.23	26,835	6,106	0.23	PCE
Alaska Power & Telephone Company	Klawock	6,278	1,457	0.23	56,357	13,077	0.23	24,025	5,575	0.23	PCE
Alaska Power & Telephone Company	Naukatik Bay	5,198	2,570	0.49	9,018	4,467	0.50	77,080	38,015	0.49	PCE
Alaska Power & Telephone Company	Skagway	5,544	1,188	0.21	17,786	3,811	0.21	26,445	5,666	0.21	PCE
Alaska Power & Telephone Company	Thorne Bay	4,871	1,108	0.23	11,007	2,505	0.23	16,023	3,646	0.23	PCE
Alaska Power & Telephone Company	Whale Pass	2,518	1,452	0.58	9,264	5,342	0.58	2,476	1,428	0.58	PCE
City of Petersburg	Petersburg	12,988	1,322	0.10	36,384	4,029	0.11				EIA
City of Tenakee Springs	Tenakee Springs	1,856	925	0.50	2,923	1,457	0.50	2,764	1,377	0.50	PCE
City of Wrangell	Wrangell	10,208	1,073	0.11	27,070	2,810	0.10				EIA
Elfin Cove Utility Commission	Elfin Cove	2,550	1,354	0.53	11,888	6,311	0.53	1,771	940	0.53	PCE
Gustavus Electric Co	Gustavus	1,972	1,452	0.74	4,533	3,337	0.74	8,493	6,253	0.74	PCE
Inside Passage Electric	Angoon	4,952	2,845	0.57	21,696	12,464	0.57	14,921	8,572	0.57	PCE
Inside Passage Electric	Haines	3,378	1,941	0.57	19,980	11,478	0.57	1,407	808	0.57	PCE
Inside Passage Electric	Hoonah	5,264	3,024	0.57	31,039	17,831	0.57	17,178	9,868	0.57	PCE

Table 2.4b Average Annual Energy Use and Cost, 2008

Utility Name	Community	Residential			Commercial			Other			Source
		kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	
Inside Passage Electric	Kake	4,393	2,524	0.57	17,281	9,927	0.57	11,617	6,673	0.57	PCE
Inside Passage Electric	Klukwan	4,532	2,626	0.58	14,455	8,376	0.58	5,754	3,334	0.58	PCE
Ketchikan Public Utilities	Multiple	11,075	1,132	0.10	77,164	7,240	0.09				EIA
Metlakatla Power & Light	Metlakatla	11,517	1,091	0.09	31,630	3,681	0.12				EIA
Pelican Utility	Pelican	6,311	1,041	0.16	19,396	3,038	0.16				EIA
Sitka City & Borough of	Sitka	13,308	1,266	0.10	50,604	4,779	0.10				EIA
Yakutat Power Inc	Yakutat	5,625	2,766	0.49	40,201	19,770	0.49	19,455	9,567	0.49	PCE
South West		4,922	2,386	0.48	30,060	14,057	0.47	21,265	10,390	0.49	
Akiachak Native Community	Akiachak	3,818	2,180	0.57	9,803	5,596	0.57	21,330	12,176	0.57	PCE
Akiak City Council	Akiak	3,071	1,797	0.59	22,720	13,291	0.59	20,735	12,130	0.59	PCE
Alaska Village Electric Coop	Eek	3,457	1,881	0.54	19,055	10,371	0.54	12,845	6,991	0.54	PCE
Alaska Village Electric Coop	Goodnews Bay	3,766	2,021	0.54	16,814	9,023	0.54	14,501	7,781	0.54	PCE
Alaska Village Electric Coop	Kalskag	4,506	2,210	0.49	16,737	8,208	0.49	11,096	5,441	0.49	PCE
Alaska Village Electric Coop	Kasigluk	5,035	2,204	0.44	25,874	11,326	0.44	16,963	7,426	0.44	PCE
Alaska Village Electric Coop	Lower Kalskag	3,328	1,622	0.49	29,902	14,571	0.49	16,410	7,997	0.49	PCE
Alaska Village Electric Coop	Mekoryuk	3,086	1,598	0.52	13,679	7,083	0.52	16,077	8,324	0.52	PCE
Alaska Village Electric Coop	New Stuyahok	5,011	2,693	0.54	35,805	19,243	0.54	16,298	8,759	0.54	PCE
Alaska Village Electric Coop	Nightmute	5,425	2,742	0.51	14,019	7,086	0.51	10,104	5,107	0.51	PCE
Alaska Village Electric Coop	Nunapitchuk	4,799	2,104	0.44	19,193	8,414	0.44	16,787	7,359	0.44	PCE
Alaska Village Electric Coop	Quinhagak	4,135	2,216	0.54	47,844	25,640	0.54	24,318	13,032	0.54	PCE
Alaska Village Electric Coop	Togiak	4,511	2,217	0.49	39,195	19,260	0.49	22,575	11,093	0.49	PCE
Alaska Village Electric Coop	Toksook Bay	4,853	2,034	0.42	32,105	13,453	0.42	15,885	6,656	0.42	PCE
Alaska Village Electric Coop	Tununak	4,569	1,915	0.42	20,279	8,498	0.42	14,675	6,150	0.42	PCE
Aniak Light & Power	Aniak	5,370	3,940	0.73	23,122	16,963	0.73	52,798	38,733	0.73	PCE
Atmautluak Tribal Utilities	Atmautluak	4,095	2,621	0.64	13,935	8,919	0.64	12,262	7,848	0.64	PCE
Bethel Utilities Corporation	Bethel	6,275	3,093	0.49	21,796	10,742	0.49	77,061	37,978	0.49	PCE
Chignik Lagoon Power Utility	Chignik Lagoon	5,286	2,388	0.45	17,556	8,000	0.45	8,250	3,750	0.45	PCE
Chignik Lake Electric Utility	Chignik Lake	4,029	2,324	0.58	9,125	5,250	0.58	4,000	2,167	0.58	PCE

Table 2.4b Average Annual Energy Use and Cost, 2008

Utility Name	Community	Residential			Commercial			Other			Source
		kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	
City of Akutan	Akutan	5,221	1,687	0.32	12,076	3,900	0.32	10,067	3,252	0.32	PCE
City of Atka	Atka	4,838	3,017	0.62	13,347	8,322	0.62	3,499	2,182	0.62	PCE
City of Chignik	Chignik	3,700	2,140	0.58	10,810	6,238	0.58	10,250	5,917	0.58	PCE
City of Ekwok	Ekwok	4,175	2,088	0.50	14,797	7,398	0.50	16,893	8,446	0.50	PCE
City of King Cove	King Cove	5,001	1,200	0.24	33,967	8,152	0.24	22,602	5,424	0.24	PCE
City of Nikolai	Nikolai	4,166	2,671	0.64	12,527	8,031	0.64	6,290	4,033	0.64	PCE
City of Platinum	Platinum	1,481	740	0.50	3,515	1,758	0.50	4,126	2,063	0.50	PCE
City of Unalaska	Unalaska	5,764	2,660	0.46	156,430	72,202	0.46	52,574	24,266	0.46	PCE
Egegik Light & Power Co	Egegik	3,033	2,190	0.72	20,251	14,621	0.72	7,540	5,444	0.72	PCE
G & K Inc	Cold Bay	5,316	3,607	0.68	39,215	26,608	0.68	26,207	17,782	0.68	PCE
Igiugig Electric Company	Igiugig	3,327	2,036	0.61	9,195	5,626	0.61	5,219	3,193	0.61	PCE
I-N-N Electric Coop Inc	Newhalen	5,401	3,040	0.56	14,886	8,378	0.56	19,668	11,069	0.56	PCE
Kipnuk Light Plant	Kipnuk	5,149	2,506	0.49	18,611	9,056	0.49	4,535	2,207	0.49	PCE
Kokhanok Village Council	Kokhanok	3,717	2,741	0.74	8,583	6,330	0.74	12,489	9,210	0.74	PCE
Kwethluk Incorporated	Kwethluk	3,773	1,711	0.45	43,360	19,657	0.45	7,683	3,483	0.45	PCE
Kwigillingok Power Company	Kwigillingok	4,900	2,450	0.50	18,223	9,111	0.50	11,795	5,898	0.50	PCE
Levelock Electrical Coop	Levelock	2,798	1,446	0.52	6,417	3,315	0.52	11,889	6,143	0.52	PCE
Lime Village Electric Utility	Lime Village	939	1,099	1.17	6,483	7,585	1.17	3,684	4,311	1.17	PCE
Manokotak Power Company	Manokotak	3,540	1,398	0.40	6,447	2,546	0.40	25,775	10,181	0.40	PCE
Mcgrath Light & Power	McGrath	4,444	2,362	0.53	15,892	8,448	0.53	18,826	10,008	0.53	PCE
Middle Kuskokwim Electric	Chuathbaluk	2,451	1,900	0.77	14,506	11,241	0.77	4,041	3,131	0.77	PCE
Middle Kuskokwim Electric	Crooked Creek	3,023	2,343	0.77	10,974	8,504	0.77	5,541	4,294	0.77	PCE
Middle Kuskokwim Electric	Red Devil	2,629	2,037	0.77	13,815	10,705	0.77	3,045	2,359	0.77	PCE
Middle Kuskokwim Electric	Sleetmute	2,447	1,896	0.77	7,371	5,712	0.77	10,996	8,521	0.77	PCE
Middle Kuskokwim Electric	Stony River	1,866	1,446	0.77	10,258	7,949	0.77	4,921	3,813	0.77	PCE
Naknek Electric	Naknek	5,312	2,161	0.41	40,512	16,483	0.41	34,323	13,965	0.41	PCE
Napakiak Incinraq	Napakiak	3,589	2,337	0.65	11,915	7,759	0.65	4,660	3,035	0.65	PCE
Napaskiak Electric Utility	Napaskiak	6,277	3,661	0.58	14,332	8,360	0.58	5,278	3,079	0.58	PCE

Table 2.4b Average Annual Energy Use and Cost, 2008

Utility Name	Community	Residential			Commercial			Other			Source
		kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	
Naterkaq Light Plant	Chefomak	5,156	2,965	0.58	20,543	11,812	0.58	8,083	4,648	0.58	PCE
Native Village of Perryville	Perryville	5,600	2,253	0.40	4,600	2,760	0.60				EIA
Nelson Lagoon Electrical Coop	Nelson Lagoon	3,834	1,993	0.52	13,634	7,090	0.52	4,538	2,360	0.52	PCE
New Koliganek Village Council	Koliganek	2,777	1,389	0.50	8,353	4,177	0.50	11,349	5,674	0.50	PCE
Nushagak Electric	Dillingham	5,930	2,179	0.37	26,199	9,627	0.37	18,650	6,853	0.37	PCE
Pedro Bay Village Council	Pedro Bay	3,394	2,299	0.68	17,204	11,656	0.68	6,731	4,561	0.68	PCE
Pilot Point Electric Utility	Pilot Point	4,503	2,252	0.50	9,046	4,523	0.50	7,696	3,848	0.50	PCE
Puvuruaq Power Company	Kongiganak	5,308	2,698	0.51	23,957	12,178	0.51	8,055	4,095	0.51	PCE
St. Paul Municipal Electric	Saint Paul	5,556	2,999	0.54	41,735	22,526	0.54	44,751	24,154	0.54	PCE
Takotna Community Assoc Inc	Takotna	2,539	1,924	0.76	9,083	6,884	0.76	6,904	5,233	0.76	PCE
Tanalien Electric Cooperative	Port Alsworth	4,227	2,874	0.68	6,403	4,354	0.68	4,903	3,334	0.68	PCE
TDX Adak Generating LLC	Adak	317	236	0.74	2,593	1,930	0.74	2,643	1,967	0.74	PCE
TDX Corporation	Sand Point	5,433	3,094	0.57	11,217	6,388	0.57	15,350	8,741	0.57	PCE
Tuluksak Traditional	Tuluksak	2,916	1,750	0.60	15,480	9,288	0.60	5,037	3,022	0.60	PCE
Tuntutuliak Community	Tuntutuliak	4,357	2,266	0.52	11,929	6,203	0.52	3,325	1,729	0.52	PCE
Twin Hills Village Council	Twin Hills	3,919	2,156	0.55	6,033	3,318	0.55	6,147	3,381	0.55	PCE
Umnak Power Company	Nikolski	3,828	2,201	0.58	12,454	7,161	0.58	5,527	3,178	0.58	PCE
Ungusraq Power Company	Newtok	1,922	1,454	0.76	3,016	2,281	0.76	1,839	1,391	0.76	PCE
Yukon		7,903	1,623	0.21	137,726	21,668	0.16	25,564	21,173	0.52	
Alaska Power & Telephone Company	Allakaket	2,799	2,103	0.75	8,806	6,616	0.75	15,405	11,574	0.75	PCE
Alaska Power & Telephone Company	Bettles	5,843	3,894	0.67	6,773	4,513	0.67	16,839	11,221	0.67	PCE
Alaska Power & Telephone Company	Chistochina	3,552	2,333	0.66	6,925	4,547	0.66	15,384	10,102	0.66	PCE
Alaska Power & Telephone Company	Dot Lake	3,896	1,723	0.44	9,059	4,007	0.44	24,613	10,886	0.44	PCE

Table 2.4b Average Annual Energy Use and Cost, 2008

Utility Name	Community	Residential			Commercial			Other			Source
		kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	
Alaska Power & Telephone Company	Eagle	2,458	1,535	0.62	3,975	2,482	0.62	9,053	5,652	0.62	PCE
Alaska Power & Telephone Company	Healy Lake	2,297	1,791	0.78	3,392	2,645	0.78	7,012	5,467	0.78	PCE
Alaska Power & Telephone Company	Mentasta Lake	2,907	2,142	0.74	7,015	5,168	0.74	14,642	10,788	0.74	PCE
Alaska Power & Telephone Company	Northway	3,758	2,375	0.63	21,075	13,318	0.63	26,571	16,790	0.63	PCE
Alaska Power & Telephone Company	Slana	3,005	2,003	0.67	9,712	6,472	0.67	22,866	15,239	0.67	PCE
Alaska Power & Telephone Company	Tetlin	3,455	1,528	0.44	3,537	1,564	0.44	23,651	10,460	0.44	PCE
Alaska Power & Telephone Company	Tok	5,281	2,336	0.44	17,303	7,653	0.44	63,483	28,076	0.44	PCE
Alaska Village Electric Coop	Alakanuk	4,735	2,489	0.53	39,766	20,900	0.53	34,530	18,147	0.53	PCE
Alaska Village Electric Coop	Anvik	4,008	2,320	0.58	7,348	4,254	0.58	8,865	5,132	0.58	PCE
Alaska Village Electric Coop	Chevak	4,837	2,551	0.53	46,476	24,513	0.53	27,117	14,303	0.53	PCE
Alaska Village Electric Coop	Emmonak	4,814	2,446	0.51	30,635	15,567	0.51	32,586	16,559	0.51	PCE
Alaska Village Electric Coop	Grayling	3,107	1,795	0.58	18,014	10,407	0.58	14,067	8,127	0.58	PCE
Alaska Village Electric Coop	Holy Cross	3,829	2,150	0.56	11,423	6,413	0.56	13,258	7,443	0.56	PCE
Alaska Village Electric Coop	Hooper Bay	3,777	1,889	0.50	40,427	20,219	0.50	31,596	15,802	0.50	PCE
Alaska Village Electric Coop	Huslia	4,418	2,436	0.55	13,617	7,509	0.55	14,971	8,256	0.55	PCE
Alaska Village Electric Coop	Kaltag	3,741	1,989	0.53	14,552	7,739	0.53	13,611	7,239	0.53	PCE
Alaska Village Electric Coop	Marshall	5,167	2,647	0.51	23,412	11,993	0.51	16,872	8,643	0.51	PCE
Alaska Village Electric Coop	Minto	3,612	1,769	0.49	9,815	4,806	0.49	20,946	10,257	0.49	PCE
Alaska Village Electric Coop	Mountain Village	4,902	2,431	0.50	49,055	24,329	0.50	32,809	16,272	0.50	PCE
Alaska Village Electric Coop	Nulato	3,950	2,209	0.56	16,365	9,151	0.56	15,433	8,630	0.56	PCE
Alaska Village Electric Coop	Pilot Station	5,201	2,745	0.53	48,304	25,500	0.53	28,003	14,783	0.53	PCE
Alaska Village Electric Coop	Pitkas Point	3,759	1,897	0.50	27,308	13,781	0.50	25,979	13,110	0.50	PCE
Alaska Village Electric Coop	Russian Mission	4,905	2,532	0.52	25,653	13,241	0.52	19,954	10,300	0.52	PCE

Table 2.4b Average Annual Energy Use and Cost, 2008

Utility Name	Community	Residential			Commercial			Other			Source
		kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	kWh Use per Customer	Revenue per Customer	Average \$ per kWh	
Alaska Village Electric Coop	Saint Marys	4,131	2,084	0.50	29,935	15,106	0.50	29,078	14,674	0.50	PCE
Alaska Village Electric Coop	Scammon Bay	5,274	2,924	0.55	40,921	22,686	0.55	26,417	14,645	0.55	PCE
Alaska Village Electric Coop	Shageluk	2,639	1,643	0.62	18,909	11,776	0.62	11,904	7,413	0.62	PCE
Beaver Joint Utilities	Beaver	2,307	1,211	0.53	9,144	4,801	0.53	5,205	2,733	0.53	PCE
Birch Creek Village Elec Util	Birch Creek	1,167	711	0.61	19,667	12,000	0.61				EIA
Central Electric Inc	Central	1,916	1,069	0.56	6,429	3,586	0.56	13,543	7,555	0.56	PCE
Chalkyitsik Village Council	Chalkyitsik	525	499	0.95	2,036	1,934	0.95	5,081	4,827	0.95	PCE
Circle Electric Utility	Circle	3,041	1,908	0.63	11,770	7,385	0.63	22,911	14,377	0.63	PCE
City of Galena	Galena	4,870	2,140	0.44	21,586	9,483	0.44	57,593	25,302	0.44	PCE
City of Koyukuk	Koyukuk	1,784	803	0.45	9,335	4,201	0.45	5,001	2,250	0.45	PCE
City of Ruby	Ruby	1,593	1,517	0.95	14,250	13,573	0.95	5,512	5,250	0.95	PCE
Golden Valley Elec Assn Inc	Multiple	8,426	1,557	0.18	153,361	23,186	0.15				EIA
Gwitchyaa Zhee Utilities Co	Fort Yukon	3,460	1,764	0.51	12,073	6,157	0.51	34,093	17,387	0.51	PCE
Hughes Power & Light	Hughes	3,097	1,838	0.59	10,452	6,201	0.59	11,607	6,887	0.59	PCE
Kotlik Joint Utility	Kotlik	5,061	2,890	0.57	30,357	17,336	0.57	26,480	15,122	0.57	PCE
Manley Utilities	Manley Hot Springs	1,476	981	0.66	10,137	6,739	0.66	4,590	3,052	0.66	PCE
Nunam Iqua Electric Company	Nunam Iqua	4,137	1,934	0.47	74,236	34,705	0.47	19,468	9,101	0.47	PCE
Paxson Inn & Lodge	Paxson				30,000	40,000	1.33				EIA
Stevens Village Ira Council	Stevens Village	1,889	1,694	0.90	18,115	16,243	0.90	11,423	10,243	0.90	PCE
Tanana Power Company Inc	Tanana	2,590	1,538	0.59	11,347	6,738	0.59	20,686	12,284	0.59	PCE

Note: PCE data do not include average cents per kWh for commercial or other categories, the residential rate is assumed for these categories.

**Region totals are weighted averages.*

Table 2.4c Pro Forma Monthly Resident Electric Bills, 2008

Utility Name	Community	\$/kWh before PCE *	250 kWh \$ per month	500 kWh \$ per month	750 kWh \$ per month	1000 kWh \$ per month	Source
State		0.16	39	79	118	157	
Arctic Northwest		0.35	87	174	261	348	
South Central		0.15	36	73	109	145	
South East		0.14	35	71	106	141	
South West		0.48	121	241	362	483	
Yukon		0.21	51	103	154	205	
Arctic Northwest		0.35	87	174	261	348	
Alaska Village Electric Coop	Ambler	0.81	203	407	610	813	PCE
Alaska Village Electric Coop	Brevig Mission	0.51	128	256	383	511	PCE
Alaska Village Electric Coop	Elim	0.50	125	250	376	501	PCE
Alaska Village Electric Coop	Gambell	0.53	132	265	397	530	PCE
Alaska Village Electric Coop	Kiana	0.57	142	283	425	566	PCE
Alaska Village Electric Coop	Kivalina	0.57	143	286	429	573	PCE
Alaska Village Electric Coop	Koyuk	0.51	128	257	385	514	PCE
Alaska Village Electric Coop	Noatak	0.74	186	372	558	744	PCE
Alaska Village Electric Coop	Noorvik	0.57	143	286	430	573	PCE
Alaska Village Electric Coop	Saint Michael	0.50	126	252	377	503	PCE
Alaska Village Electric Coop	Savoonga	0.52	131	262	393	524	PCE
Alaska Village Electric Coop	Selawik	0.54	135	271	406	542	PCE
Alaska Village Electric Coop	Shaktolik	0.50	125	249	374	498	PCE
Alaska Village Electric Coop	Shishmaref	0.48	119	238	357	476	PCE
Alaska Village Electric Coop	Shungnak	0.73	182	365	547	730	PCE
Alaska Village Electric Coop	Stebbins	0.52	130	261	391	521	PCE
Alaska Village Electric Coop	Teller	0.59	149	297	446	595	PCE
Alaska Village Electric Coop	Wales	0.53	132	263	395	526	PCE
Barrow Utils & Elect Coop Inc	Barrow	0.13	32	63	95	126	EIA
City of Buckland C/O	Buckland	0.46	116	232	348	464	PCE
City of White Mountain	White Mountain	0.72	180	360	540	720	PCE
Diomedea Joint Utilities	Diomedea	0.60	150	300	450	600	PCE
Golovin Power Utilities	Golovin	0.58	145	290	435	580	PCE
Ipnatchiaq Electric Company	Deering	0.63	158	316	474	632	PCE
Kobuk Valley Electric Company	Kobuk	0.72	181	362	543	724	PCE
Kotzebue Electric Association	Kotzebue	0.39	98	196	293	391	PCE
Nome Joint Utility System	Nome	0.33	83	167	250	334	PCE
North Slope Borough	Anaktuvuk Pass	0.15	38	75	113	150	PCE
North Slope Borough	Atkasuk	0.15	38	75	113	150	PCE
North Slope Borough	Kaktovik	0.15	38	75	113	150	PCE
North Slope Borough	Nuqsut	0.15	38	75	113	150	PCE
North Slope Borough	Point Hope	0.15	38	75	113	150	PCE

Table 2.4c Pro Forma Monthly Resident Electric Bills, 2008

Utility Name	Community	\$/kWh before PCE *	250 kWh \$ per month	500 kWh \$ per month	750 kWh \$ per month	1000 kWh \$ per month	Source
North Slope Borough	Point Lay	0.15	38	75	113	150	PCE
North Slope Borough	Wainwright	0.15	38	75	113	150	PCE
Unalakleet Valley Electric	Unalakleet	0.38	96	191	287	383	PCE
South Central		0.15	36	73	109	145	
Alaska Village Electric Coop	Old Harbor	0.50	124	248	372	496	PCE
Alutiiq Power Company	Karluk	0.60	150	300	450	600	PCE
Anchorage Municipal Light & Power	MULTIPLE	0.10	26	52	78	104	EIA
Chenega Ira Council	Chenega Bay	0.43	108	217	325	434	PCE
Chitina Electric Inc	Chitina	0.56	141	282	423	564	PCE
Chugach Electric Assn Inc	MULTIPLE	0.14	36	72	107	143	EIA
City of Ouzinkie	Ouzinkie	0.37	92	184	276	368	PCE
Copper Valley Elec Assn Inc	MULTIPLE	0.24	61	122	184	245	EIA
Cordova Electric	Cordova	0.38	94	188	282	376	PCE
Homer Electric Assn Inc	MULTIPLE	0.17	42	83	125	166	EIA
Kodiak Electric Assn Inc	MULTIPLE	0.19	48	96	144	192	EIA
Larsen Bay Utility Company	Larsen Bay	0.40	100	200	300	400	PCE
Matanuska Electric Assn Inc	MULTIPLE	0.14	36	71	107	143	EIA
Seward City of	Seward	0.16	40	81	121	162	EIA
Tatitlek Village Ira Council	Tatitlek	0.43	108	215	323	430	PCE
South East		0.14	35	71	106	141	
Alaska Electric Light & Power Co	MULTIPLE	0.15	38	76	114	152	EIA
Alaska Power & Telephone Company	Coffman Cove	0.56	140	280	420	561	PCE
Alaska Power & Telephone Company	Craig	0.23	58	116	174	232	PCE
Alaska Power & Telephone Company	Haines	0.22	54	108	162	217	PCE
Alaska Power & Telephone Company	Hollis	0.23	58	116	174	232	PCE
Alaska Power & Telephone Company	Hydaburg	0.23	57	114	171	228	PCE
Alaska Power & Telephone Company	Klawock	0.23	58	116	174	232	PCE
Alaska Power & Telephone Company	Naukatli Bay	0.57	142	284	427	569	PCE
Alaska Power & Telephone Company	Skagway	0.21	54	107	161	214	PCE
Alaska Power & Telephone Company	Thorne Bay	0.23	57	114	171	228	PCE
Alaska Power & Telephone Company	Whale Pass	0.58	144	288	432	577	PCE
City of Petersburg	Petersburg	0.10	25	51	76	102	EIA
City of Tenakee Springs	Tenakee Springs	0.50	125	249	374	498	PCE
City of Wrangell	Wrangell	0.11	26	53	79	105	EIA
Elfin Cove Utility Commission	Elfin Cove	0.53	133	265	398	531	PCE
Gustavus Electric Co	Gustavus	0.74	184	368	552	736	PCE
Inside Passage Electric	Angeon	0.57	144	287	431	574	PCE
Inside Passage Electric	Haines	0.57	144	287	431	574	PCE
Inside Passage Electric	Hoonah	0.57	144	287	431	574	PCE
Inside Passage Electric	Kake	0.57	144	287	431	574	PCE
Inside Passage Electric	Klukwan	0.58	145	290	435	579	PCE

Table 2.4c Pro Forma Monthly Resident Electric Bills, 2008

Utility Name	Community	\$/kWh before PCE *	250 kWh \$ per month	500 kWh \$ per month	750 kWh \$ per month	1000 kWh \$ per month	Source
Ketchikan Public Utilities	MULTIPLE	0.10	26	51	77	102	EIA
Metlakatla Power & Light	Metlakatla	0.09	24	47	71	95	EIA
Pelican Utility	Pelican	0.16	41	82	124	165	EIA
Sitka City & Borough of	Sitka	0.10	24	48	71	95	EIA
Yakutat Power Inc	Yakutat	0.49	123	246	369	492	PCE
South West		0.48	121	241	362	483	
Akiachak Native Community	Akiachak	0.57	143	285	428	571	PCE
Akiak City Council	Akiak	0.59	146	293	439	585	PCE
Alaska Village Electric Coop	Eek	0.54	136	272	408	544	PCE
Alaska Village Electric Coop	Goodnews Bay	0.54	134	268	402	537	PCE
Alaska Village Electric Coop	Kalskag	0.49	123	245	368	490	PCE
Alaska Village Electric Coop	Kasigluk	0.44	109	219	328	438	PCE
Alaska Village Electric Coop	Lower Kalskag	0.49	122	244	365	487	PCE
Alaska Village Electric Coop	Mekoryuk	0.52	129	259	388	518	PCE
Alaska Village Electric Coop	New Stuyahok	0.54	134	269	403	537	PCE
Alaska Village Electric Coop	Nightmute	0.51	126	253	379	505	PCE
Alaska Village Electric Coop	Nunapitchuk	0.44	110	219	329	438	PCE
Alaska Village Electric Coop	Quinhagak	0.54	134	268	402	536	PCE
Alaska Village Electric Coop	Togiak	0.49	123	246	369	491	PCE
Alaska Village Electric Coop	Toksook Bay	0.42	105	210	314	419	PCE
Alaska Village Electric Coop	Tununak	0.42	105	210	314	419	PCE
Aniak Light & Power	Aniak	0.73	183	367	550	734	PCE
Atmautluak Tribal Utilities	Atmautluak	0.64	160	320	480	640	PCE
Bethel Utilities Corporation	Bethel	0.49	123	246	370	493	PCE
City of Chignik	Chignik	0.45	113	227	340	454	PCE
Chignik Lagoon Power Utility	Chignik Lagoon	0.58	145	291	436	582	PCE
City of Akutan	Akutan	0.32	81	162	242	323	PCE
City of Atka	Atka	0.62	156	312	468	624	PCE
Chignik Lake Electric Utility	Chignik Lake	0.58	145	289	434	579	PCE
City of Ekwok	Ekwok	0.50	125	250	375	500	PCE
City of King Cove	King Cove	0.24	60	120	180	240	PCE
City of Nikolai	Nikolai	0.64	160	321	481	641	PCE
City of Platinum	Platinum	0.50	125	250	375	500	PCE
City of Unalaska	Dutch Harbor	0.46	116	232	348	464	EIA
City of Unalaska	Unalaska	0.46	115	231	346	462	PCE
Egegik Light & Power Co	Egegik	0.72	181	361	542	722	PCE
G & K Inc	Cold Bay	0.68	170	339	509	679	PCE
Igiugig Electric Company	Igiugig	0.61	153	306	459	612	PCE
I-N-N Electric Coop Inc	Iliamna, Newhalen, Nondalton	0.56	141	281	422	563	PCE
Kipnuk Light Plant	Kipnuk	0.49	122	243	365	487	PCE
Kokhanok Village Council	Kokhanok	0.74	184	369	553	738	PCE

Table 2.4c Pro Forma Monthly Resident Electric Bills, 2008

Utility Name	Community	\$/kWh before PCE *	250 kWh \$ per month	500 kWh \$ per month	750 kWh \$ per month	1000 kWh \$ per month	Source
Kwethluk Incorporated	Kwethluk	0.45	113	227	340	453	PCE
Kwigillingok Power Company	Kwigillingok	0.50	125	250	375	500	PCE
Levelock Electrical Coop	Levelock	0.52	129	258	388	517	PCE
Lime Village Electric Utility	Lime Village	1.17	293	585	877	1170	PCE
Manokotak Power Company	Manokotak	0.40	99	198	296	395	PCE
Mcgrath Light & Power	McGrath	0.53	133	266	399	532	PCE
Middle Kuskokwim Electric	Chuathbaluk	0.77	194	387	581	775	PCE
Middle Kuskokwim Electric	Crooked Creek	0.77	194	387	581	775	PCE
Middle Kuskokwim Electric	Red Devil	0.77	194	387	581	775	PCE
Middle Kuskokwim Electric	Sleetmute	0.77	194	387	581	775	PCE
Middle Kuskokwim Electric	Stony River	0.77	194	387	581	775	PCE
Naknek Electric	Naknek	0.41	102	203	305	407	PCE
Napakiak Irceinrag	Napakiak	0.65	163	326	488	651	PCE
Napaskiak Electric Utility	Napaskiak	0.58	146	292	438	583	PCE
Naterkaq Light Plant	Chefomak	0.58	144	288	431	575	PCE
Native Village of Perryville	Perryville	0.40	101	201	302	402	EIA
Nelson Lagoon Electrical Coop	Nelson Lagoon	0.52	130	260	390	520	PCE
New Koliganek Village Council	Koliganek	0.50	125	250	375	500	PCE
Nushagak Electric	Dillingham	0.37	92	184	276	367	PCE
Pedro Bay Village Council	Pedro Bay	0.68	169	339	508	677	PCE
Pilot Point Electric Utility	Pilot Point	0.50	125	250	375	500	PCE
Puvuruaq Power Company	Kongiganak	0.51	127	254	381	508	PCE
St. Paul Municipal Electric	Saint Paul	0.54	135	270	405	540	PCE
Takotna Community Assoc Inc	Takotna	0.76	189	379	568	758	PCE
Tanalian Electric Cooperative	Port Alsworth	0.68	170	340	510	680	PCE
TDX Adak Generating LLC	Adak	0.74	186	372	558	744	PCE
TDX Corporation	Sand Point	0.57	142	285	427	569	PCE
Tuluksak Traditional	Tuluksak	0.60	150	300	450	600	PCE
Tuntutuliak Community	Tuntutuliak	0.52	130	260	390	520	PCE
Twin Hills Village Council	Twin Hills	0.55	138	275	413	550	PCE
Umnak Power Company	Nikolski	0.58	144	288	431	575	PCE
Ungusraq Power Company	Newtok	0.76	189	378	567	756	PCE
Yukon		0.21	51	103	154	205	
Alaska Power & Telephone Company	Allakaket	0.75	188	376	563	751	PCE
Alaska Power & Telephone Company	Bettles	0.67	167	333	500	666	PCE
Alaska Power & Telephone Company	Chistochina	0.66	164	328	492	657	PCE
Alaska Power & Telephone Company	Dot Lake	0.44	111	221	332	442	PCE
Alaska Power & Telephone Company	Eagle	0.62	156	312	468	624	PCE
Alaska Power & Telephone Company	Healy Lake	0.78	195	390	585	780	PCE
Alaska Power & Telephone Company	Mentasta Lake	0.74	184	368	553	737	PCE
Alaska Power & Telephone Company	Northway	0.63	158	316	474	632	PCE
Alaska Power & Telephone Company	Slana	0.67	167	333	500	666	PCE

Table 2.4c Pro Forma Monthly Resident Electric Bills, 2008

Utility Name	Community	\$/kWh before PCE *	250 kWh \$ per month	500 kWh \$ per month	750 kWh \$ per month	1000 kWh \$ per month	Source
Alaska Power & Telephone Company	Tetlin	0.44	111	221	332	442	PCE
Alaska Power & Telephone Company	Tok	0.44	111	221	332	442	PCE
Alaska Village Electric Coop	Alakanuk	0.53	131	263	394	526	PCE
Alaska Village Electric Coop	Anvik	0.58	145	289	434	579	PCE
Alaska Village Electric Coop	Chevak	0.53	132	264	396	527	PCE
Alaska Village Electric Coop	Emmonak	0.51	127	254	381	508	PCE
Alaska Village Electric Coop	Grayling	0.58	144	289	433	578	PCE
Alaska Village Electric Coop	Holy Cross	0.56	140	281	421	561	PCE
Alaska Village Electric Coop	Hooper Bay	0.50	125	250	375	500	PCE
Alaska Village Electric Coop	Huslia	0.55	138	276	414	551	PCE
Alaska Village Electric Coop	Kaltag	0.53	133	266	399	532	PCE
Alaska Village Electric Coop	Marshall	0.51	128	256	384	512	PCE
Alaska Village Electric Coop	Minto	0.49	122	245	367	490	PCE
Alaska Village Electric Coop	Mountain Village	0.50	124	248	372	496	PCE
Alaska Village Electric Coop	Nulato	0.56	140	280	419	559	PCE
Alaska Village Electric Coop	Pilot Station	0.53	132	264	396	528	PCE
Alaska Village Electric Coop	Pitkas Point	0.50	126	252	378	505	PCE
Alaska Village Electric Coop	Russian Mission	0.52	129	258	387	516	PCE
Alaska Village Electric Coop	Saint Marys	0.50	126	252	378	505	PCE
Alaska Village Electric Coop	Scammon Bay	0.55	139	277	416	554	PCE
Alaska Village Electric Coop	Shageluk	0.62	156	311	467	623	PCE
Beaver Joint Utilities	Beaver	0.53	131	263	394	525	PCE
Birch Creek Village Elec Util	Birch Creek	0.61	152	305	457	610	EIA
Central Electric Inc	Central	0.56	139	279	418	558	PCE
Chalkyitsik Village Council	Chalkyitsik	0.95	238	475	713	950	PCE
Circle Electric Utility	Circle	0.63	157	314	471	628	PCE
City of Galena	Galena	0.44	110	220	329	439	PCE
City of Koyukuk	Koyukuk	0.45	113	225	338	450	PCE
City of Ruby	Ruby	0.95	238	476	714	953	PCE
Golden Valley Elec Assn Inc	MULTIPLE	0.18	46	92	139	185	EIA
Gwitchyaa Zhee Utilities Co	Fort Yukon	0.51	127	255	382	510	PCE
Hughes Power & Light	Hughes	0.59	148	297	445	593	PCE
Kotlik Joint Utility	Kotlik	0.57	143	286	428	571	PCE
Manley Utilities	Manley Hot Springs	0.66	166	332	499	665	PCE
Nunam Iqua Electric Company	Nunam Iqua	0.47	117	234	351	468	PCE
Stevens Village Ira Council	Stevens Village	0.90	224	448	673	897	PCE
Tanana Power Company Inc	Tanana	0.57	143	285	428	570	PCE

**Region totals are weighted averages by residential sales.*

PART 3. ALASKA INDUSTRIAL ELECTRICITY STATISTICS

Table 3.1 Alaska Industry Installed Capacity by Prime Mover (MW), 2008

Facility	Gas & Combustion Turbine	Internal Combustion	Steam Turbine	Wind	Total	No. of Generators	Source
State	839.6	503.6	13.0	675.0	1,056.3	216.0	
Petroleum	839.6	142.4			982.0	170	
Tesoro Alaska Co	8.0				8.0	2	EIA
Alyeska Pipeline Service Company	345.5	3.1			348.6	32	AIRTOOLS
BP Exploration (Alaska) Inc.	297.5	90.7			388.2	71	AIRTOOLS
ConocoPhillips Alaska, Inc.	183.4	18.1			201.5	30	AIRTOOLS
Union Oil Company of California (UOCC) (formerly UNOCAL)	2.3	24.8			27.1	27	AIRTOOLS
XTO Energy, Inc.	3.0	5.7			8.6	8	AIRTOOLS
Seafood		51.6			51.6	37	
Alyeska Seafoods Inc.		5.5			5.5	6	AIRTOOLS
Icicle Seafoods, Inc.		4.7			4.7	4	AIRTOOLS
Peter Pan Seafoods		3.4			3.4	3	AIRTOOLS
Trident Seafoods		16.0			16.0	15	AIRTOOLS
Unisea Inc		15.5			15.5	6	EIA
Westward Seafoods Inc		6.6			6.6	3	EIA
Other		309.6	13.0	675.0	22.6	9.0	
University of Alaska		9.6	13.0		22.6	4	EIA
POSS Camp		300.0		675.0		5	AEA

Note: Installed capacity data in the AIRTOOLS database is presented in some cases in horse power units; the conversion factor of 1HP=0.7457 kW was used.

Table 3.2 Alaska Industry Net Generation by Prime Mover (MWh), 2008

Facility	Combustion Turbine		Internal Combustion		Steam Turbine		Total	Source
	Natural Gas	Diesel	Natural Gas	Diesel	Coal	Diesel		
State	1,485,464	753,803	184,036	934,826	44,380	4,376	3,406,886	
Petroleum	1,485,464	753,803	184,036	805,232			3,228,536	
Tesoro Alaska Co	60,239						60,239	EIA
Alyeska Pipeline Service Company	281,904	751,566		81			1,033,552	AIRTOOLS
BP Exploration (Alaska) Inc.	605,942	2,205		7,748			615,894	AIRTOOLS
ConocoPhillips Alaska, Inc.	502,333	32		13,488			515,853	AIRTOOLS
Union Oil Company of California (UOCC) (formerly UNOCAL)	18,106		156,010	783,915			958,032	AIRTOOLS
XTO Energy, Inc.	16,940		28,026				44,966	AIRTOOLS
Seafood				130,201			130,201	
Alyeska Seafoods Inc.				11,529			11,529	AIRTOOLS
Icicle Seafoods, Inc.				6,982			6,982	AIRTOOLS
Peter Pan Seafoods				11,633			11,633	AIRTOOLS
Trident Seafoods				49,813			49,813	AIRTOOLS
Unisea Inc				31,554			31,554	EIA
Westward Seafoods Inc				18,690			18,690	EIA
Other				-608	44,380	4,376	48,148	
University of Alaska				-608	44,380	4,376	48,148	EIA

Note: For cases with AIRTOOLS source, net generation was estimated based on fuel use; please see appendix D for details. Net generation data for POSS Camp was not available.

Table 3.3 Alaska Industry Fuel Use, 2008

Facility	Natural Gas Billion Cubic Feet	Oil Barrels	Coal Short Tons	Source
State	19	2,816,958	73,374	
Petroleum	19	2,570,067		
Tesoro Alaska Co	1	8		EIA
Alyeska Pipeline Service Company	3	1,177,406		AIRTOOLS
BP Exploration (Alaska) Inc.	7	16,821		AIRTOOLS
ConocoPhillips Alaska, Inc.	6	23,321		AIRTOOLS
Union Oil Company of California (UOCC) (formerly UNOCAL)	2	1,352,511		AIRTOOLS
XTO Energy, Inc.	0			AIRTOOLS
Seafood		224,561		
Alyeska Seafoods Inc.		19,892		AIRTOOLS
Icicle Seafoods, Inc.		12,047		AIRTOOLS
Peter Pan Seafoods		20,071		AIRTOOLS
Trident Seafoods		85,944		AIRTOOLS
Unisea Inc		55,658		EIA
Westward Seafoods Inc		30,950		EIA
Other		22,330	73,374	
University of Alaska		22,330	73,374	EIA

Note: Fuel use data for POSS Camp was not available.

PART 4. ALASKA MILITARY ELECTRICITY STATISTICS

Table 4.1 Nameplate Capacity by Prime Mover (MW), 2008

	Gas Turbine		Internal Combustion		Steam Turbine		Total MW		Total	Number of Generators		Source
	Operating	Stand-by	Operating	Stand- by	Operating	Stand- by	Operating	Stand- by	MW	Operating	Stand- by	
Military Totals	0.0	0.0	19.8	18.9	45.0	0.0	64.8	18.9	83.7	15.0	22.0	
U S Air Force-Eielson AFB				8.5	25.0		25.0	8.5	33.5	5.0	5.0	EIA
Fort Greely Power Plant				5.4			0.0	5.4	5.4		5.0	EIA
Doyon Utilities					20.0		20.0	0.0	20.0	4.0		EIA
Eareckson Air Station, Shemya Island			18.0	2.0			18.0	2.0	20.0	6.0	4.0	Airtools
Elmendorf AFB - Flight Line			1.8				1.8	0.0	1.8		5.0	Airtools
Fort Wainwright				3.0			0.0	3.0	3.0		3.0	Airtools

Table 4.2 Net Generation by Prime Mover (MWh), 2008

	Gas Turbine		Internal Combustion		Steam Turbine		Total MW		Total	Source
	Operating	Stand by	Operating	Stand by	Operating	Stand by	Operating	Stand by	MWh	
Military Totals	0	0	20,460	3,133	176,051	0	196,511	3,133	199,644	
U S Air Force-Eielson AFB				233	70,577		70,577	233	70,810	EIA
Fort Greely Power Plant				666			0	666	666	EIA
Doyon Utilities					105,474		105,474	0	105,474	EIA
Eareckson Air Station, Shemya Island			20,442	2,234			20,442	2,234	22,676	Airtools
Elmendorf AFB - Flight Line			4				4	0	4	Airtools
Fort Wainwright			14				14	0	14	Airtools

Note: These tables only include the largest produces for which we were able to collect information. Hence, they underestimate the true totals.

**Table 5.1 ALASKA UTILITY INSTALLED CAPACITY (kW)
BY PRIME MOVER (1962-2008)**

Year	Utility Total	Hydro		Steam Turbine		Internal Combustion (diesel, piston)		Combustion Gas Turbine		Combined Cycle		Wind Turbine*	
		Net Capacity	% of Utility Total	Net Capacity	% of Utility Total	Net Capacity	% of Utility Total	Net Capacity	% of Utility Total	Net Capacity	% of Utility Total	Net Capacity	% of Utility Total
1962	169,968	82,300	48%	32,875	19%	41,993	25%	12,800	8%				
1963	202,243	82,300	41%	32,875	16%	47,368	23%	39,700	20%				
1964	218,582	82,300	38%	32,750	15%	49,482	23%	54,050	25%				
1965	242,812	82,225	34%	32,750	13%	59,437	24%	68,400	28%				
1966	254,148	82,225	32%	32,750	13%	69,273	27%	69,900	28%				
1967	260,273	76,600	29%	32,750	13%	81,023	31%	69,900	27%				
1968	339,688	78,700	23%	54,750	16%	89,538	26%	116,700	34%				
1969	347,013	76,600	22%	54,750	16%	98,963	29%	116,700	34%				
1970	406,596	76,600	19%	74,750	18%	123,256	30%	131,990	32%				
1971	472,955	75,275	16%	68,250	14%	140,627	30%	188,803	40%				
1972	533,639	74,275	14%	68,250	13%	144,975	27%	246,139	46%				
1973	650,050	121,000	19%	68,250	10%	147,700	23%	313,100	48%				
1974	723,638	122,260	17%	68,000	9%	148,054	20%	385,324	53%				
1975	763,498	122,535	16%	68,000	9%	176,706	23%	396,257	52%				
1976	971,799	123,235	13%	68,000	7%	205,110	21%	575,454	59%				
1977	1,038,270	122,460	12%	68,000	7%	223,736	22%	624,074	60%				
1978	1,132,590	122,460	11%	68,000	6%	221,516	20%	720,614	64%				
1979	1,257,835	123,310	10%	101,000	8%	233,611	19%	799,914	64%				
1980	1,285,237	123,360	10%	101,000	8%	237,703	18%	823,174	64%				
1981	1,383,809	123,690	9%	158,000	11%	251,745	18%	850,374	61%				
1982	1,418,344	154,280	11%	158,000	11%	255,790	18%	850,274	60%				
1983	1,452,037	153,780	11%	158,000	11%	269,683	19%	870,574	60%				
1984	1,605,485	222,990	14%	158,030	10%	276,841	17%	947,624	59%				
1985	1,601,714	224,000	14%	144,500	9%	299,614	19%	933,600	58%				
1986	1,669,200	225,600	14%	154,000	9%	317,500	19%	972,100	58%				
1987	1,655,373	227,625	14%	145,600	9%	316,148	19%	966,000	58%				
1988	1,603,684	228,360	14%	141,800	9%	325,924	20%	907,600	57%				
1989	1,610,966	260,965	16%	141,800	9%	311,301	19%	896,900	56%				
1990	1,604,767	255,907	16%	139,200	9%	312,760	19%	896,900	56%				
1991	1,733,158	365,607	21%	139,200	8%	324,851	19%	903,500	52%				
1992	1,739,890	365,632	21%	139,200	8%	328,758	19%	906,300	52%				
1993	1,741,487	364,357	21%	139,200	8%	336,430	19%	901,500	52%				
1994	1,771,065	365,482	21%	139,200	8%	345,383	20%	921,000	52%				
1995	1,777,575	369,982	21%	139,200	8%	347,393	20%	921,000	52%				
1996	2,078,865	364,461	18%	68,500	3%	418,449	20%	1,227,425	59%				
1997	1,960,531	377,094	19%	53,500	3%	335,392	17%	1,194,350	61%			195	0.01%
1998	2,125,108	373,685	18%	68,500	3%	458,173	22%	1,224,425	58%			325	0.02%
1999	2,157,493	388,085	18%	68,500	3%	472,903	22%	1,227,225	57%			780	0.04%
2000	2,195,227	400,085	18%	68,500	3%	493,437	22%	1,232,425	56%			780	0.04%

**Table 5.1 ALASKA UTILITY INSTALLED CAPACITY (kW)
BY PRIME MOVER (1962-2008)**

Year	Utility Total	Hydro		Steam Turbine		Internal Combustion (diesel, piston)		Combustion Gas Turbine		Combined Cycle		Wind Turbine*	
		Net Capacity	% of Utility Total	Net Capacity	% of Utility Total	Net Capacity	% of Utility Total	Net Capacity	% of Utility Total	Net Capacity	% of Utility Total	Net Capacity	% of Utility Total
2001	2,259,108	443,442	20%	68,500	3%	475,736	21%	1,270,650	56%			780	0.03%
2002	2,078,380	400,100	19%	55,500	3%	317,300	15%	892,000	43%	412,600	20%	880	0.04%
2003	1,971,740	400,100	20%	55,500	3%	323,600	16%	778,800	39%	412,600	21%	1,140	0.06%
2004	1,971,740	400,100	20%	55,500	3%	323,600	16%	778,800	39%	412,600	21%	1,140	0.06%
2005	1,890,470	395,100	21%	55,500	3%	317,900	17%	732,000	39%	388,700	21%	1,270	0.07%
2006	1,910,455	396,300	21%	55,500	3%	325,500	17%	742,100	39%	388,700	20%	2,355	0.12%
2007	2,028,955	396,300	20%	55,500	3%	335,500	17%	850,600	42%	388,700	19%	2,355	0.12%
2008	2,056,730	399,300	19%	55,500	3%	359,300	17%	850,600	41%	388,700	19%	3,330	0.16%

1) Data before 2001 from the Alaska Energy Statistics Report 2003.

a) From 1996 to 2001: Combustion Turbine (CT) includes Gas Turbine (GT) and Combined Cycle Turbines (CA)

b) Wind Turbines (WT) included in net capacity value

c) Data from 1996-2000 from EIA historic tables are not consistent with prior years due to changes in reporting and utilities that failed to report to EIA.

d) Data before 1996 from prior Alaska Energy Power Statistics reports.

2) Data from 2002-2008 from EIA Annual Electric Generator data file.

e) Data from 2002-2008 not consistent with prior years due to changes in reporting and utilities that failed to report to EIA.

*Wind data entries have been modified to reflect the best available wind data from the Alaska Energy Authority. Installed wind capacity is defined here as commissioned turbines. Installed wind capacity in 2009 was 8,754kW; 11,924 kW in 2010 and 13,189 kW as of February of 2011.

**Table 5.2 ALASKA UTILITY INSTALLED CAPACITY (kW)
BY REGION (1962-2008)**

Year	Notes	Utility Total	Arctic	% of Utility Total	South Central	% of Utility Total	South East	% of Utility Total	South West	% of Utility Total	Yukon	% of Utility Total
1962	2,g	169,968										
1963	2,g	202,243										
1964	2,g	218,582										
1965	2,g	242,812										
1966	2,g	254,148										
1967	2,g	260,273										
1968	2,g	339,688										
1969	2,g	347,013										
1970	2,g	406,596										
1971	2,g	472,955										
1972	2,g	533,639										
1973	1,a	650,100	11,600	2%	369,800	57%	126,300	19%	11,600	2%	130,800	20%
1974	1,b	724,200	12,100	2%	438,700	61%	129,600	18%	12,300	2%	131,500	18%
1975	1,b	763,500	14,700	2%	451,500	59%	136,900	18%	20,400	3%	140,000	18%
1976	1,c	971,700	18,200	2%	556,900	57%	139,700	14%	23,400	2%	233,500	24%
1977	2,g	1,038,270										
1978	2,g	1,132,590										
1979	2,g	1,257,835										
1980	1,c	1,283,054	27,576	2%	750,087	58%	176,732	14%	28,887	2%	299,772	23%
1981	1,c	1,373,734	34,769	3%	836,094	61%	175,502	13%	29,867	2%	297,502	22%
1982	1,c	1,412,504	38,374	3%	848,355	60%	192,802	14%	32,196	2%	300,777	21%
1983	1,c	1,447,752	41,104	3%	848,255	59%	215,747	15%	38,494	3%	304,152	21%
1984	1,c	1,605,485	43,789	3%	947,908	59%	272,392	17%	39,884	2%	301,512	19%
1985	1,c	1,601,714	48,696	3%	926,507	58%	279,995	17%	41,215	3%	305,301	19%
1986	1,c	1,683,641	47,975	3%	1,009,062	60%	289,487	17%	42,253	3%	294,864	18%
1987	1,c	1,655,373	51,337	3%	983,122	59%	288,238	17%	45,447	3%	287,229	17%
1988	1,c	1,603,984	52,784	3%	939,109	59%	291,911	18%	48,910	3%	271,270	17%
1989	1,c	1,610,966	51,967	3%	939,494	58%	317,846	20%	52,283	3%	249,376	15%
1990	1,c	1,604,767	58,285	4%	939,487	59%	309,318	19%	53,327	3%	244,350	15%
1991	1,c	1,733,158	64,115	4%	1,054,479	61%	314,006	18%	55,092	3%	245,466	14%
1992	1,c	1,739,890	67,227	4%	1,054,499	61%	314,011	18%	57,832	3%	246,321	14%
1993	1,c	1,734,468	62,323	4%	1,046,065	60%	316,936	18%	62,323	4%	246,821	14%
1994	1,d	1,771,065	70,107	4%	1,047,945	59%	341,471	19%	62,912	4%	248,630	14%
1995	1,d	1,777,575	72,336	4%	1,047,575	59%	344,093	19%	64,132	4%	249,439	14%
1996	1,e	2,078,865	82,394	4%	1,274,326	61%	351,316	17%	60,279	3%	310,550	15%
1997	1,e	1,960,366	64,829	3%	1,219,884	62%	343,139	18%	47,986	2%	284,528	15%
1998	1,e	2,124,813	86,440	4%	1,276,954	60%	380,294	18%	64,772	3%	316,353	15%
1999	1,e	2,156,743	96,177	4%	1,292,639	60%	381,064	18%	66,451	3%	320,412	15%
2000	1,e	2,194,477	98,247	4%	1,322,809	60%	385,189	18%	66,680	3%	321,552	15%
2001	1,e	2,258,905	106,952	5%	1,351,937	60%	415,746	18%	69,141	3%	315,129	14%
2002	2,f	1,939,400	65,900	3%	1,241,400	64%	350,400	18%	45,500	2%	236,200	12%

**Table 5.2 ALASKA UTILITY INSTALLED CAPACITY (kW)
BY REGION (1962-2008)**

Year	Notes	Utility Total	Arctic	% of Utility Total	South Central	% of Utility Total	South East	% of Utility Total	South West	% of Utility Total	Yukon	% of Utility Total
2003	2,f	1,946,400	70,600	4%	1,241,400	64%	353,200	18%	45,800	2%	235,400	12%
2004	2,f	1,876,000	73,700	4%	1,172,500	63%	349,300	19%	45,100	2%	235,400	13%
2005	2,f	1,871,300	77,800	4%	1,162,400	62%	351,100	19%	44,400	2%	235,600	13%
2006	2,f	1,883,400	71,700	4%	1,161,200	62%	364,900	19%	45,600	2%	240,000	13%
2007	2,f	2,002,000	82,600	4%	1,210,100	60%	365,900	18%	43,900	2%	299,500	15%
2008	2,f	2,028,800	94,700	5%	1,209,500	60%	369,500	18%	50,400	2%	304,700	15%

1) Data before 2001 from the Alaska Energy Statistics Report 2003

a) From AK Electric Power Statistics 1960-1973

b) From AK Electric Power Statistics 1974

c) From AK Electric Power Statistics 1960-1993

d) Data before 1996 from prior AK Power Statistics reports.

e) Data from 1996-2000 from EIA historic tables.

2) Data from 2002-2008 from EIA Annual Electric Generator data file.

f) Data from 2002-2008 not consistent with prior years due to changes in reporting and utilities that failed to report to EIA.

g) Utility totals from 1962 to 1972 and from 1977 to 1979 added to the table published in 2003. Data regarding regional details are not available.

**Table 5.3 Utility Net Generation (GWh)
By Fuel Type (1962-2008)**

Year	Notes	Utility Total	Oil	% Of Utility Total	Gas	% Of Utility Total	Coal	% Of Utility Total	Hydro	% Of Utility Total	Wind	% Of Utility Total
1962												
1963	1,b								325			
1964	1,b								321			
1965	1,b								350			
1966	1,b								316			
1967	1,b								363			
1968	1,b								363			
1969	1,b								340			
1970	1,b								362			
1971	1,b	1,071	195	18%	614	57%	262	24%				
1972	1,a	1,207	193	16%	748	62%	266	22%				
1973	1,a	1,406	189	13%	950	68%	267	19%				
1974	1,c	1,868	203	11%	1,047	56%	299	16%	319	17%		
1975	1,c	2,262	277	12%	1,311	58%	323	14%	351	16%		
1976	1,c	2,502	351	14%	1,468	59%	314	13%	369	15%		
1977	1,c	2,710	378	14%	1,537	57%	297	11%	498	18%		
1978	1,c	2,864	388	14%	1,690	59%	323	11%	463	16%		
1979	1,c	2,968	383	13%	1,827	62%	308	10%	450	15%		
1980	1,c	3,034	368	12%	1,844	61%	290	10%	532	18%		
1981	1,c	3,154	338	11%	1,897	60%	338	11%	581	18%		
1982	1,c	3,607	466	13%	2,211	61%	354	10%	576	16%		
1983	1,c	3,781	526	14%	2,338	62%	331	9%	586	15%		
1984	1,c	4,057	541	13%	2,512	62%	308	8%	696	17%		
1985	1,c,e	4,234	538	13%	2,631	62%	290	7%	775	18%		
1986	1,c	4,411	535	12%	2,749	62%	272	6%	854	19%		
1987	1,c	4,424	459	10%	2,790	63%	276	6%	898	20%		
1988	1,c	4,502	451	10%	2,767	61%	295	7%	989	22%		
1989	1,c	4,604	486	11%	2,875	62%	307	7%	935	20%		
1990	1,c	4,675	449	10%	2,886	62%	316	7%	1,024	22%		
1991	1,c	4,621	547	12%	2,666	58%	323	7%	1,085	23%		
1992	1,c	4,737	530	11%	2,569	54%	302	6%	1,337	28%		
1993	1,c	4,733	575	12%	2,476	52%	322	7%	1,359	29%		
1994	1,c	4,924	593	12%	2,654	54%	294	6%	1,384	28%		
1995	1,c	5,019	591	12%	2,660	53%	309	6%	1,459	29%		
1996	1,d	4,982	643	13%	2,844	57%	229	5%	1,266	25%		
1997	1,d	5,108	741	15%	3,031	59%	237	5%	1,099	22%		
1998	1,d	4,590	757	16%	2,549	56%	171	4%	1,113	24%		
1999	1,d	4,609	798	17%	2,838	62%	156	3%	817	18%		
2000	1,d	4,938	557	11%	3,194	65%	185	4%	1,002	20%		
2001	1,d	5,417	848	16%	3,028	56%	194	4%	1,346	25%	1	0%
2002	2,f	5,472	875	16%	2,953	54%	205	4%	1,439	26%		

**Table 5.3 Utility Net Generation (GWh)
By Fuel Type (1962-2008)**

Year	Notes	Utility Total	Oil	% Of Utility Total	Gas	% Of Utility Total	Coal	% Of Utility Total	Hydro	% Of Utility Total	Wind	% Of Utility Total
2003	2,f	5,674	775	14%	3,148	55%	168	3%	1,583	28%		
2004	2,f	5,866	682	12%	3,475	59%	211	4%	1,498	26%		
2005	2,f	5,946	686	12%	3,577	60%	219	4%	1,464	25%	0.59	0%
2006	2,f	6,069	694	11%	3,940	65%	210	3%	1,224	20%	0.79	0%
2007	2,f	6,147	853	14%	3,788	62%	214	3%	1,291	21%		0%
2008	2,f	6,262	928	15%	3,942	63%	220	4%	1,172	19%	0.07	0%

1) Data before 2001 from the Alaska Energy Statistics Report 2003.

a) From AK Electric Power Statistics (AKEPS) 1960-1973; Hydro generation not included.

b) From AKEPS 1960-1970.

c) From AKEPS 1960-2001.

d) Data from 1996-2000 from EIA historic tables.

e) Monthly data was not collected in 1985, so 1984 and 1986 figures were averaged to arrive at estimated 1985 figures.

2) Data from 2002-2008 from EIA Annual Electric Generator data file.

f) Data from 2002-2008 not consistent with prior years due to changes in reporting and utilities that failed to report to EIA.

g) Even though wind installed capacity has been present in Alaska since 1997, there is little data regarding total net generation from wind turbines.

**Table 5.4 Utility Net Generation (MWh)
by Region (1963-2008)**

Year	Notes	Utility Total	Arctic	% of Utility Total	South Central	% of Utility Total	South East	% of Utility Total	South West	% of Utility Total	Yukon	% of Utility Total
1962	1											
1963	1,a	574,000	14,000	2%	329,000	57%	129,000	22%		0%	102,000	18%
1964	1,a	628,000	15,000	2%	362,000	58%	141,000	22%		0%	110,000	18%
1965	1	733,926	9,126	1%	451,349	61%	148,121	20%	7,980	1%	117,350	16%
1966	1,a	822,000	20,000	2%	510,000	62%	160,000	19%		0%	132,000	16%
1967	1,a	891,000	22,000	2%	560,000	63%	156,000	18%		0%	145,000	16%
1968	1,a	1,008,000	25,000	2%	635,000	63%	177,000	18%		0%	171,000	17%
1969	1,a	1,120,000	29,000	3%	708,000	63%	185,000	17%		0%	198,000	18%
1970	1	1,281,310	15,836	1%	804,449	63%	201,952	16%	18,941	1%	240,132	19%
1971	1	1,491,351	18,367	1%	956,098	64%	217,336	15%	22,976	2%	276,574	19%
1972	1	1,624,744	20,278	1%	1,033,717	64%	232,465	14%	25,847	2%	312,437	19%
1973	1	1,789,281	22,415	1%	1,169,883	65%	247,700	14%	28,798	2%	320,485	18%
1974	1	1,935,126	22,755	1%	1,267,829	66%	263,521	14%	32,454	2%	348,567	18%
1975	1	2,288,220	28,813	1%	1,499,648	66%	289,031	13%	37,151	2%	433,577	19%
1976	1	2,572,104	37,032	1%	1,722,992	67%	305,796	12%	29,424	1%	476,860	19%
1977	1	2,828,083	44,908	2%	1,920,710	68%	318,514	11%	42,173	1%	501,778	18%
1978	1	2,960,038	47,701	2%	2,052,305	69%	326,083	11%	47,336	2%	486,613	16%
1979	1	3,084,915	51,404	2%	2,166,505	70%	346,457	11%	50,294	2%	470,255	15%
1980	1	3,181,484	63,936	2%	2,235,091	70%	365,443	11%	55,402	2%	461,612	15%
1981	1	3,281,429	71,666	2%	2,305,525	70%	394,724	12%	59,659	2%	449,855	14%
1982	1	3,714,277	86,813	2%	2,577,871	69%	475,011	13%	68,178	2%	506,404	14%
1983	1	3,856,013	94,981	2%	2,655,641	69%	507,253	13%	77,308	2%	520,830	14%
1984	1	4,146,039	100,906	2%	2,827,848	68%	567,608	14%	79,846	2%	569,831	14%
1985	1	4,473,992	107,467	2%	3,164,189	71%	579,250	13%	83,877	2%	539,209	12%
1986	1	4,410,431	112,398	3%	3,088,302	70%	568,241	13%	89,186	2%	552,304	13%
1987	1	4,423,875	113,700	3%	3,186,583	72%	580,705	13%	106,937	2%	435,950	10%
1988	1	4,502,221	119,138	3%	3,167,213	70%	636,945	14%	112,804	3%	466,121	10%
1989	1	4,603,964	126,988	3%	3,269,386	71%	626,705	14%	119,476	3%	461,409	10%
1990	1	4,674,565	135,768	3%	3,318,206	71%	651,226	14%	127,326	3%	442,039	9%
1991	1	4,621,212	162,135	4%	3,180,445	69%	660,607	14%	126,761	3%	491,264	11%
1992	1	4,736,792	163,449	3%	3,303,067	70%	670,609	14%	132,589	3%	467,078	10%
1993	1	4,733,185	155,026	3%	3,249,963	69%	659,553	14%	135,373	3%	533,270	11%
1994	1	4,924,864	157,381	3%	3,439,538	70%	687,221	14%	143,404	3%	497,320	10%
1995	1	5,018,794	161,031	3%	3,501,178	70%	714,949	14%	139,087	3%	502,549	10%
1996	1,b,c	4,982,268	71,707	1%	3,609,022	72%	656,591	13%	91,476	2%	553,472	11%
1997	1,c	5,108,003	120,857	2%	3,594,688	70%	632,150	12%	73,625	1%	686,683	13%
1998	1,c	4,590,270	122,432	3%	3,200,155	70%	529,577	12%	76,632	2%	661,474	14%
1999	1,c	4,609,315	128,838	3%	3,338,963	72%	398,387	9%	98,213	2%	644,914	14%
2000	1,c	4,937,687	126,766	3%	3,650,429	74%	552,457	11%	44,473	1%	563,562	11%
2001	1	5,646,290	179,162	3%	3,761,085	67%	704,468	12%	167,057	3%	834,519	15%
2002	2,d	5,631,871	136,177	2%	3,859,370	69%	592,208	11%	97,834	2%	946,282	17%

**Table 5.4 Utility Net Generation (MWh)
by Region (1963-2008)**

Year	Notes	Utility Total	Arctic	% of Utility Total	South Central	% of Utility Total	South East	% of Utility Total	South West	% of Utility Total	Yukon	% of Utility Total
2003	2,d	6,079,380	138,647	2%	4,310,313	71%	686,021	11%	121,774	2%	822,626	14%
2004	2,d	6,048,565	136,395	2%	4,327,319	72%	664,930	11%	125,679	2%	794,242	13%
2005	2,d	6,120,090	137,572	2%	4,397,481	72%	671,689	11%	123,761	2%	789,587	13%
2006	2,d	6,255,896	135,213	2%	4,497,021	72%	726,890	12%	125,426	2%	771,346	12%
2007	2,d	6,436,366	133,349	2%	4,423,339	69%	745,073	12%	131,425	2%	1,003,180	16%
2008	2,d	6,439,254	151,346	2%	4,511,790	70%	704,079	11%	127,055	2%	944,984	15%

1) Data before 2001 from the Alaska Energy Statistics Report 2003.

a) From AK Power Survey, 1976; Arctic value is "Remainder", inclusive of the Arctic, North-West and South-West.

b) Barrow Natural Gas values missing for 1996.

c) Data from 1996-2000 from EIA historic tables.

2) Data from 2002-2008 from EIA Annual Electric Utility data file.

d) Data from 2002-2008 not consistent with prior years due to changes in reporting and utilities that failed to report to EIA.

Table 5.5 Utility Sales, Revenue, and Customers (1962-2008)

Year	Notes	State Total			Residential			Commercial and Industrial			Other		
		Sales (MWh)	Revenue (\$000)	Customers (accounts)	Sales (MWh)	Revenue (\$000)	Customers (accounts)	Sales (MWh)	Revenue (\$000)	Customers (accounts)	Sales (MWh)	Revenue (\$000)	Customers (accounts)
1962	1	440,000	\$17,449	50,734	215,000	\$8,774	43,112	201,000	\$7,812	7,157	24,000	\$863	
1963	1	516,000	\$18,065	54,174	233,000	\$8,553	46,239	256,000	\$8,603	7,472	27,000	\$907	
1964	1	562,000	\$18,792	57,738	253,000	\$8,762	49,358	284,000	\$9,105	7,943	25,000	\$925	
1965	1	616,000	\$20,851	59,986	277,000	\$9,789	51,456	312,000	\$10,060	8,100	27,000	\$1,002	
1966	1	694,000	\$22,818	60,554	303,000	\$10,548	52,019	357,000	\$11,049	8,110	34,000	\$1,221	
1967	1	786,000	\$25,163	62,917	348,000	\$11,738	53,797	391,000	\$11,965	8,706	47,000	\$1,460	
1968	1	841,000	\$26,461	65,412	366,000	\$12,285	55,902	411,000	\$12,381	9,058	64,000	\$1,795	
1969	1	956,000	\$28,239	69,938	417,000	\$13,048	59,967	470,000	\$13,244	9,517	69,000	\$1,947	
1970	1	1,054,000	\$30,655	74,323	465,000	\$14,015	63,996	513,000	\$14,591	9,879	76,000	\$2,049	
1971													
1972													
1973													
1974													
1975	1	1,982,586	\$62,676	103,523	910,638	\$30,789	89,724						
1976	1	2,250,884	\$85,810	114,995	1,008,683	\$38,854	98,520						
1977													
1978													
1979													
1980	1	2,825,885	\$145,643	144,558	1,277,257	\$65,561	123,894	1,444,117	\$71,556	18,679			
1981	1	2,912,588	\$179,361	151,815	1,290,616	\$76,704	129,795	1,501,272	\$89,867	19,320			
1982	1	3,243,776	\$220,120	164,087	1,460,183	\$100,168	140,769	1,694,845	\$112,052	20,996			
1983	1	3,404,361	\$263,916	179,286	1,516,594	\$121,690	154,639	1,757,507	\$126,179	21,778			
1984	1	3,638,000	\$299,075	198,765	1,588,764	\$134,421	170,470	1,901,883	\$147,733	24,678			
1985	1	3,133,696	\$327,823	207,812	1,659,526	\$142,454	171,889	12,266,920	\$151,832	983,309			
1986	1	4,041,658	\$351,620	490,615	1,610,969	\$148,852	190,401	2,169,522	\$172,254	296,143	261,167	\$30,514	4,071
1987	1	3,932,791	\$356,165	226,616	1,542,405	\$150,996	192,404	2,198,897	\$179,972	30,496	191,489	\$25,197	3,716
1988	1	4,019,398	\$366,322	227,020	1,578,933	\$154,076	191,698	2,207,325	\$180,297	30,855	233,140	\$31,949	4,467
1989	1	4,144,099	\$381,926	228,552	1,636,796	\$159,560	193,042	2,237,907	\$188,288	31,117	269,396	\$34,078	4,393
1990	1	4,235,451	\$402,043	229,897	1,646,617	\$166,009	193,443	2,307,933	\$201,250	31,817	280,901	\$34,784	4,637
1991	1	4,252,707	\$418,382	233,394	1,613,758	\$170,879	195,941	2,425,317	\$221,318	32,708	213,632	\$26,185	4,745
1992	1	4,326,067	\$432,219	237,518	1,640,914	\$177,586	199,250	2,467,751	\$226,936	33,477	217,402	\$27,697	4,791
1993	1	4,368,172	\$441,048	241,929	1,628,395	\$180,749	203,218	2,538,044	\$238,638	34,598	201,734	\$21,660	4,113
1994	1	4,550,653	\$465,995	245,246	1,689,011	\$191,397	206,279	2,635,784	\$248,265	34,962	225,858	\$26,333	4,005
1995	1	4,637,935	\$472,891	250,815	1,711,770	\$193,033	210,870	2,702,302	\$249,684	34,968	223,863	\$30,174	4,977
1996	1,c	4,779,562	\$489,489	256,103	1,766,184	\$200,660	215,712	2,834,072	\$264,912	36,194	179,306	\$23,917	4,197
1997	1,c	4,840,529	\$487,620	254,991	1,725,834	\$197,457	215,076	2,936,355	\$263,860	35,008	178,340	\$26,303	4,907
1998	1,c	5,094,584	\$508,097	265,185	1,767,992	\$203,284	222,927	3,124,911	\$277,217	36,935	201,681	\$27,596	5,323
1999	1,c	5,292,615	\$517,414	269,831	1,865,743	\$208,179	227,247	3,229,036	\$281,217	37,009	197,836	\$28,018	5,575
2000	1,c	5,309,970	\$535,246	273,530	1,854,968	\$212,474	230,534	3,273,104	\$296,990	38,928	181,898	\$25,782	4,068
2001	1	5,419,836	\$639,625	272,161	1,885,745	\$221,223	237,110	3,282,876	\$298,097	37,372	191,183	\$27,432	5,256

Table 5.5 Utility Sales, Revenue, and Customers (1962-2008)

Year	Notes	State Total			Residential			Commercial and Industrial			Other		
		Sales (MWh)	Revenue (\$000)	Customers (accounts)	Sales (MWh)	Revenue (\$000)	Customers (accounts)	Sales (MWh)	Revenue (\$000)	Customers (accounts)	Sales (MWh)	Revenue (\$000)	Customers (accounts)
2002	2,d	5,465,489	\$571,871	284,821	1,932,217	\$232,769	239,822	3,326,091	\$310,014	39,523	207,181	\$29,088	5,476
2003	2,d	5,563,682	\$584,243	290,842	1,987,009	\$238,065	246,921	3,576,673	\$346,178	43,921			
2004	2,d	5,788,484	\$636,008	296,358	2,061,905	\$256,461	251,198	3,726,579	\$379,547	45,160			
2005	2,d	5,912,571	\$693,022	302,674	2,061,652	\$274,152	256,717	3,850,919	\$418,870	45,957			
2006	2,d	6,182,291	\$794,064	308,575	2,120,254	\$314,378	261,502	4,062,037	\$479,686	47,073			
2007	2,d	6,326,610	\$840,471	312,845	2,114,456	\$320,973	265,449	4,212,154	\$519,498	47,396			
2008	2,d	6,324,855	\$931,674	317,020	2,129,297	\$352,364	268,638	4,195,558	\$579,311	48,382			

1) Data before 2001 from the Alaska Energy Statistics Report 2003.

a) "Other" category for cost/kWh not listed before 1985

b) Total sales, revenue, and customers may exceed the sum of Residential and Commercial/Industrial. This is due to the addition of accounts which do not fit into these two classes. These figures do not include sale for resale.

c) Data from 1996-2000 from EIA historic tables.

2) Data from 2002-2008 from EIA Annual Electric Utility data file

d) Data from 2002-2008 not consistent with prior years due to changes in reporting and utilities that failed to report to EIA.

Table 5.6 Average Annual Energy Use and Cost (1962-2008)

Year	Total			Residential			Commercial/Industrial			Other		
	Sales per Customer (kWh)	Revenue per Customer	Cost per kWh (cents)	Sales per Customer (kWh)	Revenue per Customer	Cost per kWh (cents)	Sales per Customer (kWh)	Revenue per Customer	Cost per kWh (cents)	Sales per Customer (kWh)	Revenue per Customer	Cost per kWh (cents)
1962	8,673	\$344	4.0	4,987	\$204	4.1	28,084	\$1,092	3.9			3.6
1963	9,525	\$333	3.5	5,039	\$185	3.7	34,261	\$1,151	3.4			3.4
1964	9,734	\$325	3.3	5,126	\$178	3.5	35,755	\$1,146	3.2			3.7
1965	10,269	\$348	3.4	5,383	\$190	3.5	38,519	\$1,242	3.2			3.7
1966	11,461	\$377	3.3	5,825	\$203	3.5	44,020	\$1,362	3.1			3.6
1967	12,493	\$400	3.2	6,469	\$218	3.4	44,912	\$1,374	3.1			3.1
1968	12,857	\$405	3.1	6,547	\$220	3.4	45,374	\$1,367	3.0			2.8
1969	13,669	\$404	3.0	6,954	\$218	3.1	49,385	\$1,392	2.8			2.8
1970	14,181	\$412	2.9	7,266	\$219	3.0	51,928	\$1,477	2.8			2.7
1971												
1972												
1973												
1974												
1975	19,151	\$605		10,149	\$343							
1976	19,574	\$746	3.8	10,238	\$394	3.8						
1977												
1978												
1979												
1980	19,548	\$1,008	5.2	10,309	\$529	5.1	77,312	\$3,831	5			
1981	19,185	\$1,181	4.0	9,943	\$591	5.9	77,706	\$4,652	6			
1982	19,769	\$1,341	6.8	10,373	\$712	6.9	80,722	\$5,337	6.6			
1983	18,988	\$1,472	7.8	9,807	\$787	8.0	80,701	\$5,794	7.2			
1984	18,303	\$1,505	8.2	9,320	\$789	8.5	77,068	\$5,986	7.8			
1985	15,079	\$1,577	9.5	9,655	\$829	14.3	12,475	\$154	9.2			
1986	8,238	\$717	9.6	8,461	\$782	14.8	7,326	\$582	9.5	64,153	\$7,495	18.6
1987	17,354	\$1,572	9.9	8,016	\$785	10.6	72,104	\$5,901	9.7	51,531	\$6,781	18.1
1988	17,705	\$1,614	9.9	8,237	\$804	10.6	71,539	\$5,843	9.6	52,192	\$7,152	19.1
1989	18,132	\$1,671	10.0	8,479	\$827	10.7	71,919	\$6,051	9.9	61,324	\$7,757	16.3
1990	18,423	\$1,749	9.5	8,512	\$858	10.1	72,538	\$6,325	8.7	60,578	\$7,501	12.4
1991	18,221	\$1,793	9.8	8,236	\$872	10.6	74,151	\$6,766	9.1	45,023	\$5,518	12.2
1992	18,214	\$1,820	10.0	8,235	\$891	10.8	73,715	\$6,779	9.2	45,377	\$5,781	12.7
1993	18,056	\$1,823	10.1	8,013	\$889	11.1	73,358	\$6,897	9.4	49,048	\$5,266	10.7
1994	18,555	\$1,900	10.2	8,188	\$928	11.3	75,390	\$7,101	9.4	56,394	\$6,575	11.7
1995	18,491	\$1,885	10.2	8,118	\$915	11.3	77,279	\$7,140	9.2	44,980	\$6,063	13.5
1996	18,663	\$1,911	10.2	8,188	\$930	11.4	78,302	\$7,319	9.3	42,722	\$5,699	13.3
1997	18,983	\$1,912	10.1	8,024	\$918	11.4	83,877	\$7,537	9.0	36,344	\$5,360	14.7
1998	19,211	\$1,916	10.0	7,931	\$912	11.5	84,606	\$7,506	8.9	37,889	\$5,184	13.7
1999	19,615	\$1,918	9.8	8,210	\$916	11.2	87,250	\$7,599	8.7	35,486	\$5,026	14.2
2000	19,413	\$1,957	10.1	8,046	\$922	11.5	84,081	\$7,629	9.1	44,714	\$6,338	14.2
2001	19,914	\$2,350	11.8	7,953	\$933	11.7	87,844	\$7,977	9.1	36,372	\$5,219	14.3
2002	19,189	\$2,008	10.5	8,057	\$971	12.0	84,156	\$7,844	9.3	37,834	\$5,312	14.0

Table 5.6 Average Annual Energy Use and Cost (1962-2008)

Year	Total			Residential			Commercial/Industrial			Other		
	Sales per Customer (kWh)	Revenue per Customer	Cost per kWh (cents)	Sales per Customer (kWh)	Revenue per Customer	Cost per kWh (cents)	Sales per Customer (kWh)	Revenue per Customer	Cost per kWh (cents)	Sales per Customer (kWh)	Revenue per Customer	Cost per kWh (cents)
2003	19,130	\$2,009	10.5	8,047	\$964	12.0	81,434	\$7,882	9.7			
2004	19,532	\$2,146	11.0	8,208	\$1,021	12.4	82,519	\$8,404	10.2			
2005	19,534	\$2,290	11.7	8,031	\$1,068	13.3	83,794	\$9,114	10.9			
2006	20,035	\$2,573	12.8	8,108	\$1,202	14.8	86,292	\$10,190	11.8			
2007	20,223	\$2,687	13.3	7,966	\$1,209	15.2	88,872	\$10,961	12.3			
2008	19,951	\$2,939	14.7	7,926	\$1,312	16.5	86,717	\$11,974	13.8			

1) Data before 2001 from the Alaska Energy Statistics Report 2003.

a) "Other" category for cost/kWh not listed before 1985

b) Total sales, revenue, and customers may exceed the sum of Residential and Commercial/Industrial. This is due to the addition of accounts which do not fit into these two classes. These figures do not include sale for resale.

c) Data from 1996-2000 from EIA historic tables.

2) Data from 2002-2008 from EIA Annual Electric Utility data file

d) Data from 2002-2008 not consistent with prior years due to changes in reporting and utilities that failed to report to EIA.

PART 6. CO2 EMISSIONS FROM ELECTRIC GENERATION

Table 6.1 CO₂ Emissions from Electric Generation by Utilities

Utility Name	Plant Name	Community	Fuel Type ⁽¹⁾	Prime Mover ⁽²⁾	Net Generation MMBtu	Total Fuel MMBtu	Emission Factor	CO ₂ Metric Tons from Fuel	Efficiency	% Above or Below US Avg ⁽³⁾	Potential CO ₂ Metric Tons Savings	Potential Fuel Savings	Source
State					18,481,537	59,711,596		3,641,265	26%	-10%	1,013,732		
Arctic Northwest					575,713	1,936,693		127,168	31%	-3%	19,531		
South Central					13,553,486	43,633,879		2,332,444	24%	-14%	778,754		
South East					318,463	1,044,463		76,402	31%	0%	6,207		
South West					706,616	2,111,939		154,429	34%	3%	2,255		
Yukon					3,327,260	10,984,621		950,821	34%	2%	206,985		
Arctic Northwest					575,713	1,936,693		127,168	31%	-3%	19,531		
Alaska Village Electric Coop		Ambler	DFO	IC	4,509	13,018	73.15	952	35%	4%			PCE
Alaska Village Electric Coop		Brevig Mission	DFO	IC	3,418	9,957	73.15	728	34%	3%			PCE
Alaska Village Electric Coop		Elim	DFO	IC	3,749	11,149	73.15	816	34%	3%			PCE
Alaska Village Electric Coop		Gambell	DFO	IC	6,321	19,513	73.15	1,427	32%	1%			PCE
Alaska Village Electric Coop		Kiana	JF	IC	5,757	17,789	70.88	1,261	32%	1%			PCE
Alaska Village Electric Coop		Kivalina	DFO	IC	4,272	13,761	73.15	1,007	31%	0%			PCE
Alaska Village Electric Coop		Koyuk	DFO	IC	4,605	14,146	73.15	1,035	33%	2%			PCE
Alaska Village Electric Coop		Noatak	DFO	IC	6,045	18,119	73.15	1,325	33%	2%			PCE

Table 6.1 CO₂ Emissions from Electric Generation by Utilities

Utility Name	Plant Name	Community	Fuel Type ⁽¹⁾	Prime Mover ⁽²⁾	Net Generation MMBtu	Total Fuel MMBtu	Emission Factor	CO ₂ Metric Tons from Fuel	Efficiency	% Above or Below US Avg ⁽³⁾	Potential CO ₂ Metric Tons Savings	Potential Fuel Savings	Source
Alaska Village Electric Coop		Noorvik	JF	IC	6,930	21,415	70.88	1,518	32%	1%			PCE
Alaska Village Electric Coop		Saint Michael	DFO	IC	5,699	16,007	73.15	1,171	36%	5%			PCE
Alaska Village Electric Coop		Savoonga	DFO	IC	6,836	21,982	73.15	1,608	31%	0%			PCE
Alaska Village Electric Coop		Selawik	JF	IC	9,562	29,086	70.88	2,062	33%	2%			PCE
Alaska Village Electric Coop		Shaktoolik	DFO	IC	2,716	8,042	73.15	588	34%	3%			PCE
Alaska Village Electric Coop		Shishmaref	JF	IC	5,584	15,436	70.88	1,094	36%	5%			PCE
Alaska Village Electric Coop		Shungnak	DFO	IC	5,063	14,925	73.15	1,092	34%	3%			PCE
Alaska Village Electric Coop		Stebbins	DFO	IC	4,784	14,114	73.15	1,032	34%	3%			PCE
Alaska Village Electric Coop		Teller	DFO	IC	2,957	10,466	73.15	766	28%	-3%	68	6,690	PCE
Alaska Village Electric Coop		Wales	DFO	IC	1,943	6,578	73.15	481	30%	-1%	23	2,234	PCE
Barrow Utils & Elect Coop, Inc	Barrow	Barrow	DFO	GT	45	198	73.15	14	23%	-8%	4	376	EIA
Barrow Utils & Elect Coop, Inc	Barrow	Barrow	NG	GT	161,725	707,980	53.06	37,565	23%	-18%	16,636	305,287	EIA
City Of Buckland C/O City Of White Mountain		Buckland	DFO	IC	5,275	20,615	73.15	1,508	26%	-5%	263	25,951	PCE
		White Mountain	DFO	IC	2,849	10,976	73.15	803	26%	-5%	131	12,875	PCE
Diomedes Joint Utilities		Diomedes	DFO	IC	1,445	6,098	73.15	446	24%	-7%	105	10,351	PCE
Golovin Power Utilities		Golovin	DFO	IC	2,524	8,320	73.15	609	30%	-1%	13	1,280	PCE
Ignatchiaq Electric Company		Deering	DFO	IC	2,281	7,473	73.15	547	31%	0%			PCE

Table 6.1 CO₂ Emissions from Electric Generation by Utilities

Utility Name	Plant Name	Community	Fuel Type ⁽¹⁾	Prime Mover ⁽²⁾	Net Generation MMBtu	Total Fuel MMBtu	Emission Factor	CO ₂ Metric Tons from Fuel	Efficiency	% Above or Below US Avg ⁽³⁾	Potential CO ₂ Metric Tons Savings	Potential Fuel Savings	Source
Kotzebue Electric Association		Kotzebue	DFO	IC	71,365	197,435	73.15	14,442	36%	5%			PCE
Nome Joint Utility System	Snake River	Nome	DFO	IC	121,434	307,799	73.15	22,515	39%	8%			PCE
North Slope Borough	NSB Anaktuvuk Pass	Anaktuvuk Pass	DFO	IC	10,867	44,938	73.15	3,287	24%	-7%	723	71,255	EIA
North Slope Borough	NSB Atkasuk Utility	Atkasuk	DFO	IC	10,059	37,924	73.15	2,774	27%	-4%	401	39,491	EIA
North Slope Borough	NSB Kaktovik Utility	Kaktovik	DFO	IC	17,312	55,094	73.15	4,030	31%	0%			EIA
North Slope Borough	NSB Nuiqsut Utility	Nuiqsut	DFO	IC	14,736	41,217	73.15	3,015	36%	5%			EIA
North Slope Borough	NSB Nuiqsut Utility	Nuiqsut	NG	OT	1,351	4,347	53.06	231	31%	-10%	56	1,024	EIA
North Slope Borough	NSB Point Hope Utility	Point Hope	DFO	IC	17,370	59,452	73.15	4,349	29%	-2%	250	24,646	EIA
North Slope Borough	NSB Point Lay Utility	Point Lay	DFO	IC	10,990	42,073	73.15	3,078	26%	-5%	484	47,741	EIA
North Slope Borough	NSB Wainwright Utility	Wainwright	DFO	IC	19,377	67,630	73.15	4,947	29%	-2%	375	36,948	EIA
Unalakleet Valley Electric Coop		Unalakleet	DFO	IC	13,957	41,622	73.15	3,045	34%	3%			PCE
South Central					13,553,486	43,633,879		2,332,444	24%	-14%	778,754		
Alaska Village Electric Coop		Old Harbor	DFO	IC	2,420	7,327	73.15	536	33%	2%			PCE
Alutiiq Power Company		Karluk	DFO	IC	885	3,240	73.15	237	27%	-4%	28	2,788	PCE
Anchorage Municipal Light And Power	George M Sullivan Generation Plant 2	Anchorage	DFO	CA	157		73.15						EIA
Anchorage Municipal Light And Power	George M Sullivan Generation Plant 2	Anchorage	DFO	CT	455	1,801	73.15	132	25%	-6%	24	2,397	EIA
Anchorage Municipal Light And Power	Anchorage 1	Anchorage	DFO	GT	22	72	73.15	5	31%	0%			EIA

Table 6.1 CO₂ Emissions from Electric Generation by Utilities

Utility Name	Plant Name	Community	Fuel Type ⁽¹⁾	Prime Mover ⁽²⁾	Net Generation MMBtu	Total Fuel MMBtu	Emission Factor	CO ₂ Metric Tons from Fuel	Efficiency	% Above or Below US Avg ⁽³⁾	Potential CO ₂ Metric Tons Savings	Potential Fuel Savings	Source
Anchorage Municipal Light And Power	Anchorage 1	Anchorage	DFO	IC	24	155	73.15	11	15%	-16%	6	562	EIA
Anchorage Municipal Light And Power	George M Sullivan Generation Plant 2	Anchorage	NG	CA	913,205		53.06						EIA
Anchorage Municipal Light And Power	George M Sullivan Generation Plant 2	Anchorage	NG	CT	2,665,944	10,553,645	53.06	559,976	25%	-16%	214,964	3,944,831	EIA
Anchorage Municipal Light And Power	Anchorage 1	Anchorage	NG	GT	250,920	809,277	53.06	42,940	31%	-10%	10,468	192,090	EIA
Anchorage Municipal Light And Power	George M Sullivan Generation Plant 2	Anchorage	NG	GT	342,220	1,345,504	53.06	71,392	25%	-16%	27,104	497,391	EIA
Chenega Ira Council		Chenega Bay	DFO	IC	761	2,724	73.15	199	28%	-3%	20	1,947	PCE
Chitina Electric Inc.		Chitina	DFO	IC	1,456	4,858	73.15	355	30%	-1%	12	1,170	PCE
Chugach Electric Assn Inc	International	Anchorage	NG	GT	-1,105	3,714	53.06	197			197		EIA
Chugach Electric Assn Inc	Beluga	Beluga	NG	CA	813,434		53.06			-41%			EIA
Chugach Electric Assn Inc	Beluga	Beluga	NG	CT	3,590,591	12,231,346	53.06	648,995	29%	-12%	184,320	3,382,480	EIA
Chugach Electric Assn Inc	Beluga	Beluga	NG	GT	3,302,137	13,122,002	53.06	696,253	25%	-16%	268,909	4,934,770	EIA
Chugach Electric Assn Inc	Bernice Lake	Nikiski	NG	GT	319,469	1,341,511	53.06	71,181	24%	-17%	29,837	547,535	EIA
City Of Ouzinkie		Ouzinkie	DFO	IC	1,191	4,470	73.15	327	27%	-4%	46	4,535	PCE
Copper Valley Elec Assn, Inc	Glennallen	Glennallen	DFO	IC	23,024	78,339	73.15	5,730	29%	-2%	298	29,328	EIA
Copper Valley Elec Assn, Inc	Valdez	Valdez	DFO	GT	24	124	73.15	9	19%	-12%	3	339	EIA
Copper Valley Elec Assn, Inc	Valdez	Valdez	DFO	IC	4,982	22,532	73.15	1,648	22%	-9%	473	46,597	EIA
Copper Valley Elec Assn, Inc	Valdez Cogen	Valdez	JF	GT	81,994	352,779	70.88	25,005	23%	-8%	6,257	653,948	EIA
Cordova Electric		Cordova	DFO	IC	43,756	114,158	73.15	8,351	38%	7%			PCE

Table 6.1 CO₂ Emissions from Electric Generation by Utilities

Utility Name	Plant Name	Community	Fuel Type ⁽¹⁾	Prime Mover ⁽²⁾	Net Generation MMBtu	Total Fuel MMBtu	Emission Factor	CO ₂ Metric Tons from Fuel	Efficiency	% Above or Below US Avg ⁽³⁾	Potential CO ₂ Metric Tons Savings	Potential Fuel Savings	Source
Homer Electric Assn Inc	Nikiski Co-Generation	Nikiski	NG	GT	1,091,021	3,329,385	53.06	176,657	33%	-8%	35,463	650,787	EIA
Homer Electric Assn Inc	Seldovia	Seldovia	DFO	IC	75	264	73.15	19	28%	-3%	2	158	EIA
Kodiak Electric Assn Inc	Nymans Plant	Kodiak	DFO	IC	18,046	62,444	73.15	4,568	29%	-2%	309	30,506	EIA
Kodiak Electric Assn Inc	Kodiak	Kodiak	DFO	IC	53,725	153,374	73.15	11,219	35%	4%			EIA
Larsen Bay Utility Company		Larsen Bay	DFO	IC	753	1,255	73.15	92	60%	29%			PCE
Tatitlek Village Ira Council		Tatitlek	DFO	IC	1,527	5,118	73.15	374	30%	-1%	14	1,382	PCE
	State-Fuel Level Increment	Multiple	DFO	IC	30,374	82,460	73.15	6,032	37%	6%			EIA
South East					318,463	1,044,463		76,402	31%	0%	6,207		
Alaska Electric Light & Power Co	Lemon Creek	Juneau	DFO	GT	17,285	87,337	73.15	6,389	20%	-11%	2,310	227,689	EIA
Alaska Electric Light & Power Co	Auke Bay	Juneau	DFO	GT	49,320	207,024	73.15	15,144	24%	-7%	3,506	345,559	EIA
Alaska Electric Light & Power Co	Gold Creek	Juneau	DFO	IC	55	186	73.15	14	29%	-2%	1	71	EIA
Alaska Electric Light & Power Co	Auke Bay	Juneau	DFO	IC	3,879	13,492	73.15	987	29%	-2%	72	7,049	EIA
Alaska Electric Light & Power Co	Lemon Creek	Juneau	DFO	IC	79,489	242,144	73.15	17,713	33%	2%			EIA
Alaska Power & Telephone Company		Coffman Cove	DFO	IC	3,117	9,714	73.15	711	32%	1%			PCE
Alaska Power & Telephone Company		Craig	DFO	IC	16,269	47,625	73.15	3,484	34%	3%			PCE
Alaska Power & Telephone Company		Haines	DFO	IC	654	2,093	73.15	153	31%	0%			PCE

Table 6.1 CO₂ Emissions from Electric Generation by Utilities

Utility Name	Plant Name	Community	Fuel Type ⁽¹⁾	Prime Mover ⁽²⁾	Net Generation MMBtu	Total Fuel MMBtu	Emission Factor	CO ₂ Metric Tons from Fuel	Efficiency	% Above or Below US Avg ⁽³⁾	Potential CO ₂ Metric Tons Savings	Potential Fuel Savings	Source
Alaska Power & Telephone Company	Hydaburg	Hydaburg	DFO	IC	249	932	73.15	68	27%	-4%	9	927	EIA
Alaska Power & Telephone Company		Naukati Bay	DFO	IC	1,752	5,694	73.15	417	31%	0%			PCE
Alaska Power & Telephone Company	Viking	Prince of Wales	DFO	IC	454	1,888	73.15	138	24%	-7%	31	3,058	EIA
Alaska Power & Telephone Company	False Island	Prince of Wales	DFO	IC	3,821	11,735	73.15	858	33%	2%			EIA
Alaska Power & Telephone Company		Skagway	DFO	IC	9,833	27,091	73.15	1,982	36%	5%			PCE
Alaska Power & Telephone Company	Thorne Bay Plant	Thorne Bay	DFO	IC	20	985	73.15	72	2%	-29%	67	6,626	EIA
Alaska Power & Telephone Company		Whale Pass	DFO	IC	926	3,253	73.15	238	28%	-3%	19	1,916	PCE
City Of Petersburg	Petersburg	Petersburg	DFO	IC	3,228	9,205	73.15	673	35%	4%			EIA
City Of Tenakee Springs		Tenakee Springs	DFO	IC	1,322	4,236	73.15	310	31%	0%			PCE
City Of Wrangell	Wrangell	Wrangell	DFO	IC	2,119	6,563	73.15	480	32%	1%			EIA
Elfin Cove Utility Commission		Elfin Cove	DFO	IC	1,228	4,086	73.15	299	30%	-1%	9	908	PCE
Gustavus Electric Co		Gustavus	DFO	IC	6,153	18,325	73.15	1,340	34%	3%			PCE
Inside Passage Electric		Angeon	DFO	IC	6,599	20,525	73.15	1,501	32%	1%			PCE
Inside Passage Electric		Hoonah	DFO	IC	17,117	50,932	73.15	3,726	34%	3%			PCE
Inside Passage Electric		Kake	DFO	IC	9,026	27,659	73.15	2,023	33%	2%			PCE
Ketchikan Public Utilities	S W Bailey	Ketchikan	DFO	IC	55,220	157,683	73.15	11,535	35%	4%			EIA
Metlakatla Power & Light	Centennial	Metlakatla	DFO	IC	899	4,527	73.15	331	20%	-11%	119	11,720	EIA
Pelican Utility	Pelican	Pelican	DFO	IC	1,017	4,149	73.15	303	25%	-6%	64	6,266	EIA
Sitka City & Borough Of	Jarvis Street	Sitka	DFO	IC	3,856	11,170	73.15	817	35%	4%			EIA

Table 6.1 CO₂ Emissions from Electric Generation by Utilities

Utility Name	Plant Name	Community	Fuel Type ⁽¹⁾	Prime Mover ⁽²⁾	Net Generation MMBtu	Total Fuel MMBtu	Emission Factor	CO ₂ Metric Tons from Fuel	Efficiency	% Above or Below US Avg ⁽³⁾	Potential CO ₂ Metric Tons Savings	Potential Fuel Savings	Source
Yakutat Power Inc.		Yakutat	DFO	IC	23,556	64,210	73.15	4,697	37%	6%			PCE
South West					706,616	2,111,939		154,429	34%	3%	2,255		
Akiachak Native Community		Akiachak	DFO	IC	6,313	22,924	73.15	1,677	28%	-3%	187	18,456	PCE
Akiak City Council		Akiak	DFO	IC	3,958	13,033	73.15	953	30%	-1%	19	1,915	PCE
Alaska Village Electric Coop		Eek	DFO	IC	2,711	8,886	73.15	650	31%	0%			PCE
Alaska Village Electric Coop		Goodnews Bay	DFO	IC	2,342	7,673	73.15	561	31%	0%			PCE
Alaska Village Electric Coop		Kalskag	DFO	IC	4,135	11,743	73.15	859	35%	4%			PCE
Alaska Village Electric Coop		Kasigluk	DFO	IC	7,186	21,369	73.15	1,563	34%	3%			PCE
Alaska Village Electric Coop		Mekoryuk	DFO	IC	3,179	9,521	73.15	696	33%	2%			PCE
Alaska Village Electric Coop		New Stuyahok	DFO	IC	4,804	13,967	73.15	1,022	34%	3%			PCE
Alaska Village Electric Coop		Nightmute	DFO	IC	1,777	5,550	73.15	406	32%	1%			PCE
Alaska Village Electric Coop		Nunapitchuk	DFO	IC	0	9	73.15	1	5%	-26%	1	53	PCE
Alaska Village Electric Coop		Quinhagak	DFO	IC	6,772	19,859	73.15	1,453	34%	3%			PCE
Alaska Village Electric Coop		Togiak	JF	IC	9,100	26,101	70.88	1,850	35%	4%			PCE
Alaska Village Electric Coop		Toksook Bay	DFO	IC	6,879	19,686	73.15	1,440	35%	4%			PCE
Alaska Village Electric Coop		Tununak	DFO	IC	287	970	73.15	71	30%	-1%	3	327	PCE

Table 6.1 CO₂ Emissions from Electric Generation by Utilities

Utility Name	Plant Name	Community	Fuel Type ⁽¹⁾	Prime Mover ⁽²⁾	Net Generation MMBtu	Total Fuel MMBtu	Emission Factor	CO ₂ Metric Tons from Fuel	Efficiency	% Above or Below US Avg ⁽³⁾	Potential CO ₂ Metric Tons Savings	Potential Fuel Savings	Source
Aniak Light & Power		Aniak	DFO	IC	8,849	27,987	73.15	2,047	32%	1%			PCE
Atmautluak Tribal Utilities		Atmautluak	DFO	IC	1,865	7,077	73.15	518	26%	-5%	78	7,661	PCE
Bethel Utilities Corporation		Bethel	DFO	IC	144,887	426,511	73.15	31,199	34%	3%			PCE
Chignik Lagoon Power Utility		Chignik	DFO	IC	1,566	6,177	73.15	452	25%	-6%	82	8,111	PCE
City Of Akutan		Akutan	DFO	IC	2,358	6,784	73.15	496	35%	4%			PCE
City Of Atka		Atka	DFO	IC	1,604	5,367	73.15	393	30%	-1%	14	1,398	PCE
City Of Chignik		Chignik Lake	DFO	IC	1,764	8,192	73.15	599	22%	-9%	183	18,034	PCE
City Of Ekwok		Ekwok	DFO	IC		3,959	73.15	290			50		PCE
City Of False Pass		False Pass	DFO	IC	522	1,912	73.15	140	27%	-4%	17	1,634	PCE
City Of King Cove		King Cove	DFO	IC	7,195	26,683	73.15	1,952	27%	-4%	254	25,045	PCE
City Of Nikolai		Nikolai	DFO	IC		3,583	73.15	262			45		PCE
City Of Platinum		Platinum	DFO	IC	785	2,792	73.15	204	28%	-3%	19	1,877	PCE
City Of Unalaska	Unalaska Power Module	Dutch Harbor	DFO	IC	9,226	26,587	73.15	1,945	35%	4%			EIA
City Of Unalaska	Dutch Harbor	Dutch Harbor	DFO	IC	100,405	283,400	73.15	20,731	35%	4%			EIA
City Of Unalaska		Unalaska	DFO	IC	118,954	344,218	73.15	25,180	35%	4%			PCE
Egegik Light & Power Co.		Egegik	DFO	IC	2,515	9,056	73.15	662	28%	-3%	69	6,812	PCE
G & K Inc.		Cold Bay	DFO	IC	9,733	29,873	73.15	2,185	33%	2%			PCE
Igiugig Electric Company		Igiugig	DFO	IC	771	2,863	73.15	209	27%	-4%	27	2,702	PCE
Iliamna Newhalen Nondalton		Nondalton	DFO	IC	784	2,471	73.15	181	32%	1%			PCE
I-N-N Electric Coop, Inc.	New Halen	Newhalen	DFO	IC	945	5,887	73.15	431	16%	-15%	208	20,464	EIA
Kipnuk Light Plant		Kipnuk	DFO	IC	5,656	20,884	73.15	1,528	27%	-4%	193	19,030	PCE
Kokhanok Village Council		Kokhanok	DFO	IC	1,521	5,322	73.15	389	29%	-2%	30	3,006	PCE
Kwethluk Incorporated		Kwethluk	DFO	IC	4,755	16,139	73.15	1,181	29%	-2%	58	5,762	PCE

Table 6.1 CO₂ Emissions from Electric Generation by Utilities

Utility Name	Plant Name	Community	Fuel Type ⁽¹⁾	Prime Mover ⁽²⁾	Net Generation MMBtu	Total Fuel MMBtu	Emission Factor	CO ₂ Metric Tons from Fuel	Efficiency	% Above or Below US Avg ⁽³⁾	Potential CO ₂ Metric Tons Savings	Potential Fuel Savings	Source
Kwigilingok Power Company		Kwigillingok	DFO	IC	3,001	9,380	73.15	686	32%	1%			PCE
Levelock Electrical Coop		Levelock	DFO	IC	1,333	5,003	73.15	366	27%	-4%	52	5,078	PCE
Lime Village Electric Utility		Lime Village	DFO	IC	305	1,227	73.15	90	25%	-6%	18	1,759	PCE
Manokotak Power Company		Manokotak	DFO	IC	4,824	13,539	73.15	990	36%	5%			PCE
Mcgrath Light & Power		McGrath	DFO	IC	9,597	29,977	73.15	2,193	32%	1%			PCE
Middle Kuskokwim Electric		Chuathbaluk	DFO	IC	809	3,217	73.15	235	25%	-6%	44	4,379	PCE
Middle Kuskokwim Electric		Crooked Creek	DFO	IC	937	3,226	73.15	236	29%	-2%	15	1,466	PCE
Middle Kuskokwim Electric		Red Devil	DFO	IC	509	2,017	73.15	148	25%	-6%	28	2,714	PCE
Middle Kuskokwim Electric		Sleetmute	DFO	IC	866	3,863	73.15	283	22%	-9%	78	7,712	PCE
Middle Kuskokwim Electric		Stony River	DFO	IC	494	2,153	73.15	157	23%	-8%	41	4,037	PCE
Naknek Electric		Naknek	DFO	IC	76,565	218,370	73.15	15,974	35%	4%			PCE
Napaskiak Electric Utility		Napaskiak	DFO	IC	3,490	10,781	73.15	789	32%	1%			PCE
Naterkaq Light Plant		Cheformak	DFO	IC	3,165	10,093	73.15	738	31%	0%			PCE
Nelson Lagoon Electrical Coop		Nelson Lagoon	DFO	IC		4,692	73.15	343			59		PCE
New Koliganek Village Council		Koliganek	DFO	IC		5,292	73.15	387			66		PCE
Nushagak Electric And Pedro Bay Village Council		Dillingham	DFO	IC	62,786	171,801	73.15	12,567	37%	6%			PCE
		Pedro Bay	DFO	IC	902	3,204	73.15	234	28%	-3%	22	2,131	PCE
Pilot Point Electric Utility		Pilot Point	DFO	IC	1,346	5,289	73.15	387	25%	-6%	69	6,822	PCE

Table 6.1 CO₂ Emissions from Electric Generation by Utilities

Utility Name	Plant Name	Community	Fuel Type ⁽¹⁾	Prime Mover ⁽²⁾	Net Generation MMBtu	Total Fuel MMBtu	Emission Factor	CO ₂ Metric Tons from Fuel	Efficiency	% Above or Below US Avg ⁽³⁾	Potential CO ₂ Metric Tons Savings	Potential Fuel Savings	Source
Puvuruaq Power Company		Kongiganak	DFO	IC	3,478	11,325	73.15	828	31%	0%			PCE
St. Paul Municipal Electric		Saint Paul	DFO	IC	20,201	59,824	73.15	4,376	34%	3%			PCE
Takotna Community Assoc Inc		Takotna	DFO	IC	825	2,762	73.15	202	30%	-1%	7	717	PCE
Tanalien Electric Cooperative		Port Alsworth	DFO	IC	2,166	7,413	73.15	542	29%	-2%	31	3,062	PCE
TDX Corporation		Sand Point	DFO	IC	14,352	42,567	73.15	3,114	34%	3%			PCE
Tuluksak Traditional		Tuluksak	DFO	IC	2,121	6,560	73.15	480	32%	1%			PCE
Tuntutuliak Community Twin Hills Village Council		Tuntutuliak	DFO	IC	3,226	11,050	73.15	808	29%	-2%	47	4,640	PCE
		Twin Hills	DFO	IC	978	4,380	73.15	320	22%	-9%	90	8,828	PCE
Umnak Power Company		Nikolski	DFO	IC	971	3,443	73.15	252	28%	-3%	23	2,244	PCE
Ungusraq Power Company		Newtok	DFO	IC	1,270	4,477	73.15	327	28%	-3%	28	2,737	PCE
Yukon					3,327,260	10,984,621		950,821	34%	2%	206,985		
Alaska Power & Telephone Company		Allakaket	DFO	IC	2,208	6,644	73.15	486	33%	2%			PCE
Alaska Power & Telephone Company		Bettles	DFO	IC	2,088	6,744	73.15	493	31%	0%			PCE
Alaska Power & Telephone Company		Chistochina	DFO	IC	1,120	3,601	73.15	263	31%	0%			PCE
Alaska Power & Telephone Company		Eagle	DFO	IC	2,584	7,910	73.15	579	33%	2%			PCE
Alaska Power & Telephone Company		Healy Lake	DFO	IC	318	1,533	73.15	112	21%	-10%	37	3,648	PCE
Alaska Power & Telephone Company		Mentasta Lake	DFO	IC	1,117	4,226	73.15	309	26%	-5%	46	4,490	PCE

Table 6.1 CO₂ Emissions from Electric Generation by Utilities

Utility Name	Plant Name	Community	Fuel Type ⁽¹⁾	Prime Mover ⁽²⁾	Net Generation MMBtu	Total Fuel MMBtu	Emission Factor	CO ₂ Metric Tons from Fuel	Efficiency	% Above or Below US Avg ⁽³⁾	Potential CO ₂ Metric Tons Savings	Potential Fuel Savings	Source
Alaska Power & Telephone Company		Northway	DFO	IC	4,719	14,092	73.15	1,031	33%	2%			PCE
Alaska Power & Telephone Company		Slana	DFO	IC	1,555	4,894	73.15	358	32%	1%			PCE
Alaska Power & Telephone Company		Tetlin	DFO	IC	851	2,117	73.15	155	40%	9%			PCE
Alaska Power & Telephone Company		Tok	DFO	IC	39,626	113,408	73.15	8,296	35%	4%			PCE
Alaska Village Electric Coop		Alakanuk	DFO	IC	6,239	18,671	73.15	1,366	33%	2%			PCE
Alaska Village Electric Coop		Anvik	DFO	IC	1,593	5,228	73.15	382	30%	-1%	6	636	PCE
Alaska Village Electric Coop		Chevak	JF	IC	7,949	25,535	70.88	1,810	31%	0%			PCE
Alaska Village Electric Coop		Emmonak	JF	IC	9,966	29,785	70.88	2,111	33%	2%			PCE
Alaska Village Electric Coop		Grayling	DFO	IC	1,974	6,506	73.15	476	30%	-1%	10	1,009	PCE
Alaska Village Electric Coop		Holy Cross	DFO	IC	2,206	6,913	73.15	506	32%	1%			PCE
Alaska Village Electric Coop		Hooper Bay	JF	IC	9,364	27,804	70.88	1,971	34%	3%			PCE
Alaska Village Electric Coop		Huslia	DFO	IC	3,237	9,748	73.15	713	33%	2%			PCE
Alaska Village Electric Coop		Kaltag	DFO	IC	2,595	7,441	73.15	544	35%	4%			PCE
Alaska Village Electric Coop		Marshall	DFO	IC	4,220	12,161	73.15	890	35%	4%			PCE
Alaska Village Electric Coop		Minto	DFO	IC	2,176	7,254	73.15	531	30%	-1%	17	1,685	PCE

Table 6.1 CO₂ Emissions from Electric Generation by Utilities

Utility Name	Plant Name	Community	Fuel Type ⁽¹⁾	Prime Mover ⁽²⁾	Net Generation MMBtu	Total Fuel MMBtu	Emission Factor	CO ₂ Metric Tons from Fuel	Efficiency	% Above or Below US Avg ⁽³⁾	Potential CO ₂ Metric Tons Savings	Potential Fuel Savings	Source
Alaska Village Electric Coop		Mountain Village	JF	IC	9,140	25,613	70.88	1,815	36%	5%			PCE
Alaska Village Electric Coop		Nulato	DFO	IC	3,667	11,082	73.15	811	33%	2%			PCE
Alaska Village Electric Coop		Pilot Station	DFO	IC	5,569	17,603	73.15	1,288	32%	1%			PCE
Alaska Village Electric Coop		Russian Mission	DFO	IC	2,856	8,466	73.15	619	34%	3%			PCE
Alaska Village Electric Coop		Saint Marys	JF	IC	10,010	29,019	70.88	2,057	34%	3%			PCE
Alaska Village Electric Coop		Scammon Bay	DFO	IC	5,906	18,054	73.15	1,321	33%	2%			PCE
Alaska Village Electric Coop		Shageluk	DFO	IC	1,315	4,728	73.15	346	28%	-3%	36	3,500	PCE
Aurora Energy LLC	Aurora Energy LLC Chena	Fairbanks	SUB	ST	604,286	3,254,580	97.09	315,987	19%	-14%	138,199	71,213	EIA
Beaver Joint Utilities		Beaver	DFO	IC		4,238	73.15	310			53		PCE
Central Electric Inc.		Central	DFO	IC	1,654	6,236	73.15	456	27%	-4%	66	6,499	PCE
Circle Electric Utility		Circle	DFO	IC	1,167	4,521	73.15	331	26%	-5%	55	5,441	PCE
City Of Galena		Galena	DFO	IC	26,518	79,720	73.15	5,832	33%	2%			PCE
City Of Koyukuk		Koyukuk	DFO	IC	332	1,295	73.15	95	26%	-5%	16	1,602	PCE
City Of Ruby		Ruby	DFO	IC		3,661	73.15	268			46		PCE
Golden Valley Elec Assn Inc	Delta Power	Delta Junction*	DFO	GT	-491	696	73.15	51			9		EIA
Golden Valley Elec Assn Inc	Fairbanks	Fairbanks	DFO	GT	343	2,501	73.15	183	14%	-17%	102	10,046	EIA
Golden Valley Elec Assn Inc	Fairbanks	Fairbanks	DFO	IC	-31	1,060	73.15	78			14		EIA
Golden Valley Elec Assn Inc	Fairbanks	Fairbanks	RFO	GT	17,873	129,967	78.80	10,241	14%	-17%	5,698	483,072	EIA

Table 6.1 CO₂ Emissions from Electric Generation by Utilities

Utility Name	Plant Name	Community	Fuel Type ⁽¹⁾	Prime Mover ⁽²⁾	Net Generation MMBtu	Total Fuel MMBtu	Emission Factor	CO ₂ Metric Tons from Fuel	Efficiency	% Above or Below US Avg ⁽³⁾	Potential CO ₂ Metric Tons Savings	Potential Fuel Savings	Source
Golden Valley Elec Assn Inc	Healy	Healy	DFO	ST	733	2,840	73.15	208	26%	-5%	35	3,439	EIA
Golden Valley Elec Assn Inc	Healy	Healy	SUB	ST	751,869	2,921,670	97.09	283,665	26%	-7%	62,456	32,183	EIA
Golden Valley Elec Assn Inc	North Pole	North Pole	DFO	GT	13,465	33,497	73.15	2,450	40%	9%			EIA
Golden Valley Elec Assn Inc	North Pole	North Pole	Naphtha	GT	1,321,603	2,992,519	70.88	212,110	44%	13%			EIA
Golden Valley Elec Assn Inc	North Pole	North Pole	HAGO	GT	414,319	1,028,021	78.80	81,008	40%	9%			EIA
Gwitchyaa Zhee Utilities Co		Fort Yukon	DFO	IC	10,267	25,126	73.15	1,838	41%	10%			PCE
Hughes Power & Light		Hughes	DFO	IC	1,010	3,274	73.15	240	31%	0%			PCE
Kotlik Joint Utility		Kotlik	DFO	IC	6,202	20,131	73.15	1,473	31%	0%			PCE
Manley Utilities		Manley Hot Springs	DFO	IC	999	3,847	73.15	281	26%	-5%	46	4,495	PCE
Nunam Iqua Electric Company		Nunam Iqua	DFO	IC	2,797	9,012	73.15	659	31%	0%			PCE
Stevens Village Ira Council		Stevens Village	DFO	IC	974	3,668	73.15	268	27%	-4%	38	3,788	PCE
Tanana Power Company Inc.		Tanana	DFO	IC	4,314	13,035	73.15	954	33%	2%			PCE
Venetie Village Electric		Venetie	DFO	IC	887	2,725	73.15	199	33%	2%			PCE

(1) DFO=Distillate Fuel Oil; RFO=Residual Fuel Oil; JF=Jet Fuel; NG=Natural Gas; SUB=Sub-bituminous Coal, HAGO=Heavy Atmospheric Gas Oil

(2) CA=Combined Cycle, Steam Part; CT=Combined Cycle Combustion, Turbine Part; IC=Internal Combustion Engine; GT=Gas Turbine; ST=Steam Turbine; HY=Hydraulic Turbine; WT=Wind Turbine

(3) Little distillate fuel electric generation occurs in the U.S. outside of Alaska and Hawaii. Therefore, the national average is largely driven by Hawaiian efficiencies which are on average lower than Alaska. Negative numbers are below the average; positive numbers are above the average.

Figure 6.1 Utility Potential CO₂ Reductions from Efficiency Gains

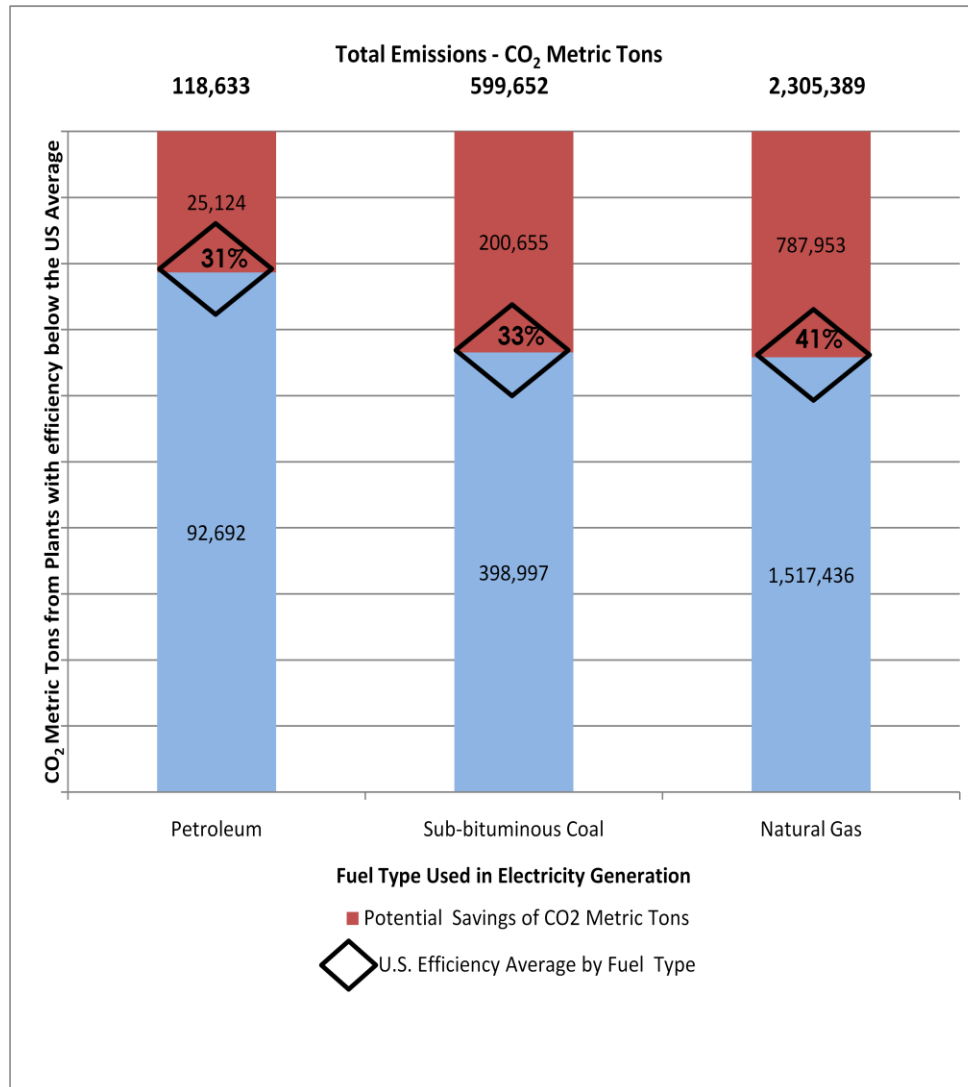
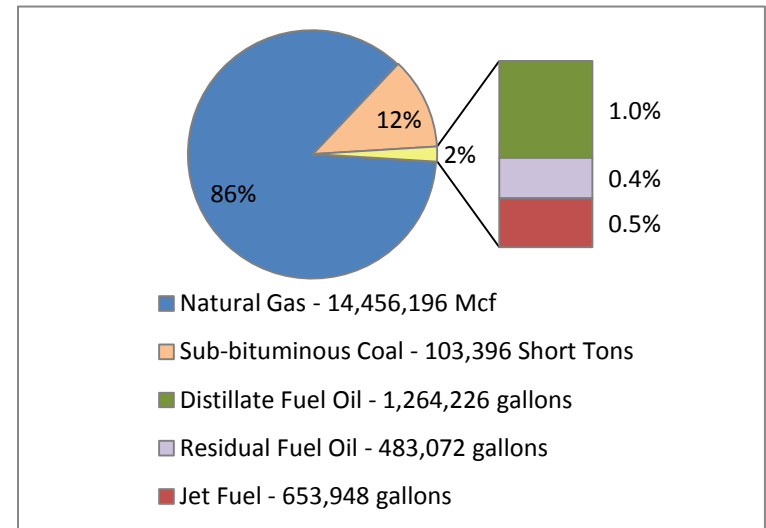


Figure 6.2. Utility Potential Fuel Energy Savings

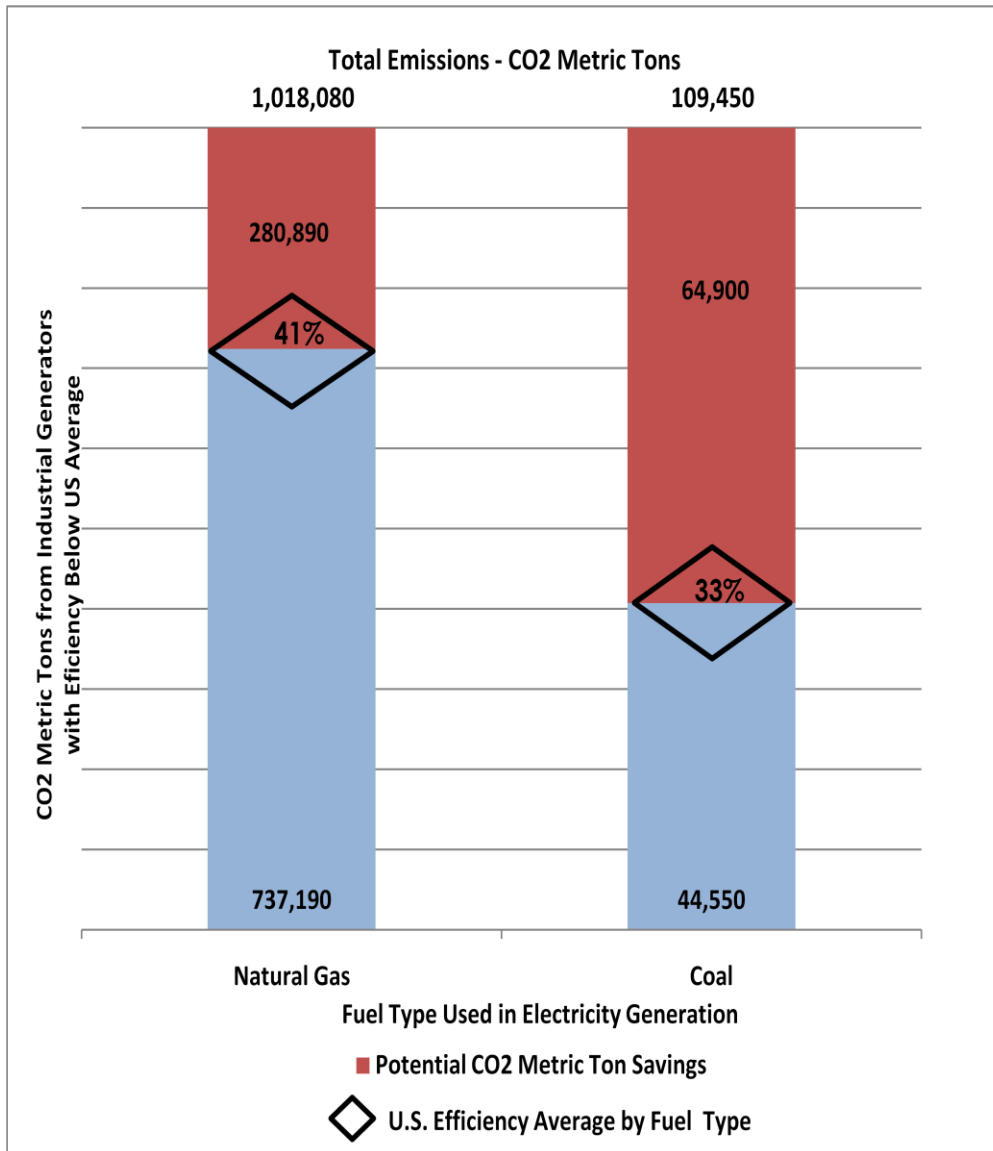


Note: Distribution based on MMBtu energy equivalent units.

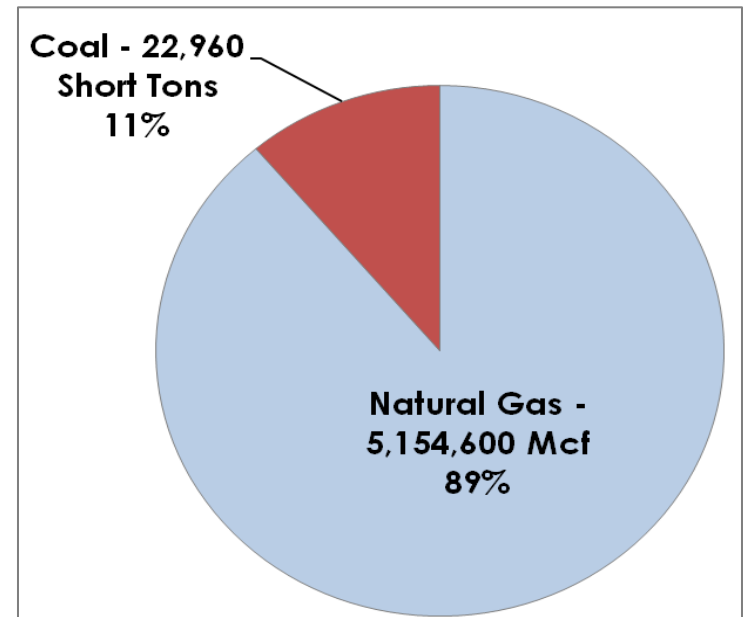
Table 6.2 CO₂ Emissions from Industrial Electric Generation, 2008

Facility	Total Net Generation MWh	Total Net Generation MMBtu	Natural Gas MMBtu	Natural Gas CO ₂ Metric Tons	Oil MMBtu	Oil CO ₂ Metric Tons	Coal MMBtu	Coal CO ₂ Metric Tons	Fuel Total MMBtu	Total Metric Tons
State	3,406,886		19,187,275	1,018,077	16,471,046	1,204,857	1,127,350	109,454	36,785,671	2,332,388
Petroleum	3,228,536		19,187,275	1,018,077	14,970,589	1,095,099			34,157,864	2,113,175
Tesoro Alaska Co	60,239	205,534	884,600	46936.9	48	4			884,648	46,940
Alyeska Pipeline Service Company	1,033,552	3,526,480	3,206,191	170120.5	6,858,367	501,690			10,064,558	671,810
BP Exploration (Alaska) Inc.	615,894	2,101,431	6,891,581	365667.3	97,979	7,167			6,989,560	372,834
ConocoPhillips Alaska, Inc.	515,853	1,760,090	5,713,201	303142.4	135,844	9,937			5,849,045	313,079
Union Oil Company of California (UOCC) (formerly UNOCAL)	958,032	3,268,806	1,980,287	105074.0	7,878,351	576,301			9,858,637	681,375
XTO Energy, Inc.	44,966	153,425	511,415	27135.7					511,415	27,136
Seafood	130,201				1,370,385	100,244			1,370,385	100,244
Alyeska Seafoods Inc.	11,529	39,338			115,870	8,476			115,870	8,476
Icicle Seafoods, Inc.	6,982	23,824			70,172	5,133			70,172	5,133
Peter Pan Seafoods	11,633	39,691			116,910	8,552			116,910	8,552
Trident Seafoods	49,813	169,962			500,620	36,620			500,620	36,620
Unisea Inc	31,554	107,662			380,135	27,807			380,135	27,807
Westward Seafoods Inc	18,690	63,770			186,677	13,655			186,677	13,655
Other	48,148				130,072	9514.8	1,127,350	109,454	1,257,422	118,969
University of Alaska	48,148	164,281			130,072	9514.8	1,127,350	109,454	1,257,422	118,969

Figure 6.3 Industry Potential CO₂ Reductions from Efficiency Gains



6.4 Industry Potential Energy Savings by Fuel Type



Note: Distribution based on MMBtu energy equivalent units.

ALASKA RAILBELT UTILITIES

The Alaska Railbelt is generally defined to include the cities of Anchorage and Fairbanks as well as the communities adjacent to the Alaska Railroad connecting them and the cities on the Kenai Peninsula. There are six interconnected utilities serving the Railbelt, with a combined installed capacity of 65% of the statewide total, producing 79% of the total electricity generated by Alaska utilities. Five of the utilities are located in the Southcentral region while one, Golden Valley Electric Association, is located in the historic Alaska Electric Power Statistics, Yukon region. The six are:

- Anchorage Municipality Light and Power (ML&P)
- Chugach Electric Association (CEA)
- Golden Valley Electric Association (GVEA)
- Homer Electric Association (HEA)
- Matanuska Electric Association (MEA)
- Seward Electric System (SES)

Anchorage Municipality Light and Power is responsible for producing much of its own electricity, about 94% percent. ML&P operates 11 generators between two power plants, which operate on natural gas (9) and diesel (2). The utility also operates two hydro-generators and transmits the power from the Eklutna Lake hydroelectric facility from which it keeps 53.3%, and gets a share of 25.9% from Bradley Lake. Some power is purchased from CEA, if needed.

Chugach Electric Association, the largest electric utility in Alaska, is responsible for just over 36% percent of total statewide electric power generation. Chugach operates 13 generators fueled with natural gas between three power plants: Bernice, Beluga and International. CEA has about 512 megawatts of installed capacity of which 15MW (two 7.5MW generators) or about 3% is hydroelectric power from Cooper Lake.

In addition, CEA purchases power from several sources: Eklutna Lake (30% share) and Bradley Lake (30.4% share). It also sells to, or buys from ML&P when necessary. Of the total available energy (2,409,006: 96% generated, 4% purchased), roughly 53% to 64% is sold for resale to other Railbelt utilities. Included in this is electricity delivered to GVEA in Fairbanks through the state-owned Intertie system.

Golden Valley Electric Association provides electric power in and around the Fairbanks area. The utility generates approximately 52% percent of its total sales. GVEA's generating capability of 276 MW is supplied by four generating facilities. The Healy Power Plant is a 27 MW coal-fired unit located adjacent to the Usibelli Coal Mine. GVEA's 180 MW North Pole Power Plant is fired with diesel and naphtha, and built next to the Flint Hills refinery. The oil-fired Zehnder Power Plant in Fairbanks has an installed capacity of 42 MW. The Delta Power Plant (DPP), formerly the Chena 6 Power Plant, has an installed capacity of 27 MW. Demand is also met through

purchases from Aurora Energy (a private company), ML&P and CEA, and GVEA's share of Bradley Lake (16.9%). The purchases from ML&P and CEA and Bradley Lake power are transmitted via interties.

Homer Electric Association has a small amount of its own generation equipment but purchases most of its power from CEA to meet customer demands. Homer Electric Association owns the Nikiski natural gas combustion turbine. During the summer months it provides 39 MW of peaking capacity and in the winter provides 42 MW. Primarily to meet commercial demand, HEA purchases their share of the Bradley Lake output (12%). Also, HEA operates and maintains the Bradley Lake facility under contract with the AEA.

Matanuska Electric Association does not generate power; it purchases 100% of its power. Their power sales are from their share of the Eklutna (16.7% or less than 10,000 MWh), Bradley Lake output (13%, or about 41,000 MWh), and mostly power purchases of about 650,000 MWh from CEA. Chugach Electric Association purchases MEA's share of the Bradley Lake output then sells it back to them for distribution.

Seward Electric System has its own backup and standby generation facility with six internal combustion generators with a total capacity of 13.3 MW, but primarily purchases power from CEA. In 2008, SES generated about 1,000 MWh. Chugach Electric Association purchases SES's share of Bradley Lake output (1%) and sells it back to them, similar to their role with MEA.

The installed thermal capacity and share of hydroelectric units is shown in Table 7.1.

7.1 Railbelt Installed Capacity

Utility	Thermal Existing Capacity	Bradley Lake Capacity*	Eklutna Lake Capacity	Cooper Lake Capacity	Total
MEA	0	16.1	6.7	0	22.8
HEA	42	14	0	0	56
CEA	500.5	35.6	12	20	568.1
GVEA	278.1	19.8	0	0	297.9
ML&P	278.3	30.3	21.3	0	329.9
SES	0	1.2	0	0	1.2
Total	1,098.9	117	40	20	1,275.9

**Nameplate rating for Bradley Lake is 126 MW with 90 MW dispatchable and 27 MW for spinning reserve under normal conditions.*

Source: Black and Veatch, 2010, Railbelt Integrated Resource Plan, February.

Hydroelectric Resources

Currently, each of the utilities in the Railbelt region has full or partial ownership in existing hydroelectric generation facilities (Table 7.1). The hydroelectric generation plants include Bradley Lake (a 120 MW hydroelectric plant that under normal conditions dispatches up to 90

Table 7.2 Railbelt Hydroelectric Generation Plants

Utility	Bradley Lake				Eklutna Lake				Cooper Lake	
	Percent Allocation	Annual Energy (MWh)	Capacity (MW)	Spinning Reserves (MW)	Percent Allocation	Annual Energy (MWh)	Capacity (MW)	Percent Allocation	Annual Energy (MWh)	Capacity (MW)
MEA	13.8	54,383	12.4	3.7	16.7	26,056	6.7	0	0	0
HEA	12	47,289	10.8	3.2	0	0	0	0	0	0
CEA	30.4	119,800	27.4	8.2	30	46,806	12	100	41,342	20
GVEA	16.9	66,599	15.2	4.6	0	0	0	0	0	0
ML&P	25.9	102,066	23.3	7	53.3	83,159	21.3	0	0	0
SES	1	3,941	0.9	0.3	0	0	0	0	0	0
Total	100	394,078	90	27	100	156,021	40	100	41,342	20

**Nameplate rating for Bradley Lake is 126 MW with 90 MW dispatchable and 27 MW for spinning reserve under normal conditions.*

Source: Black and Veatch, 2010, Railbelt Integrated Resource Plan, February.

MW and provides an additional 27 MW of spinning reserves), Eklutna Lake hydroelectric facility (maximum capacity of 40 MW), and Cooper Lake hydroelectric facility (20 MW of capacity). Table 7.2 gives the percent ownership, average annual energy, and capacity for each utility for each of the existing hydroelectric plants. In the existing system, hydroelectric capacity and energy allocations are based on percent ownership. The annual and monthly energy is based on the average historical energy generated at each plant for the previous nine to ten years (depending on historical plant data provided) and is presented in Table 7.3.

Table 7.3 Hydroelectric Monthly and Annual Energy (MWh)

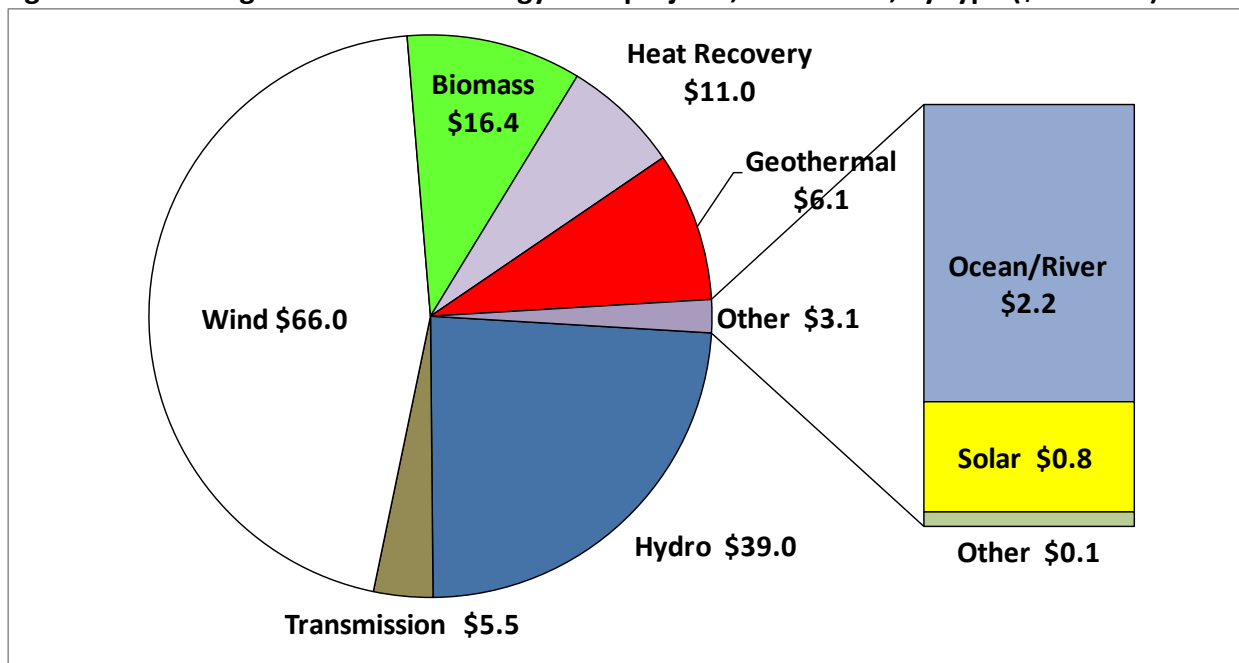
Month	Bradley Lake	Eklutna Lake	Cooper Lake
January	28,688	11,153	3,696
February	29,448	10,653	3,421
March	31,737	12,374	3,967
April	28,829	12,039	3,687
May	28,643	10,094	3,854
June	31,586	13,425	4,072
July	35,372	14,547	4,361
August	37,881	17,954	3,328
September	37,728	17,494	3,388
October	37,654	14,102	2,421
November	34,152	11,452	2,198
December	32,360	10,734	2,951
Total	394,078	156,021	41,344

Source: Black and Veatch, 2010, Railbelt Integrated Resource Plan, February.

ALASKA RENEWABLE ENERGY

Alaska has a significant renewable electrical energy portfolio (approximately 17%), consisting primarily of hydroelectric capacity in Southcentral and Southeast Alaska. The type and quantity of renewable energy generation is increasing.¹ The Alaska State Legislature created the Renewable Energy Fund (REF) in 2008, with the intent to appropriate \$50 million annually for five years. This legislation placed Alaska near the forefront of the 50 states in funding for renewable energy. The Legislature authorized the AEA to manage the REF project application process, project evaluations, recommendations, completion of grant agreements and disbursement of funds to grantees. Since fall of 2008, AEA received more than 350 applications requesting more than \$985 million for rounds one through three grant solicitations². Figure 8.1 shows the amount of funding allocated by type of project for rounds one through three.

Figure 8.1. Funding for renewable energy fund projects, rounds 1-3, by type (\$ millions)



Source: Alaska Energy Authority, REF program data.

Note: Includes "Round 0" \$7 million funded by the Denali Commission and AEA.

Hydroelectric

The reporting of installed capacity of hydroelectric facilities is complicated by the ownership structure of the larger units, since they have changed over time and the reporting by different entities has not always been consistent. However, Table 8.3 includes most of the hydroelectric facilities operating in Alaska.

¹ For more details and maps on Alaska renewable energy resources, see the *Alaska Renewable Energy Atlas*, 2009, [www.akenergyauthority.org/Reports and Presentations/EnergyAtlas2009.pdf](http://www.akenergyauthority.org/Reports%20and%20Presentations/EnergyAtlas2009.pdf)

² Alaska Energy Authority, Renewable Energy Fund fact sheet: www.akenergyauthority.org/FactSheets/AEA_ProgramFS_ReFUND.pdf

Between 1981 and 1985 four hydroelectric facilities were placed into service by AEA to provide power to communities in Southeast and South Central Alaska. These facilities were known as the Four Dam Pool (Table 8.1).

Table 8.1 Four Dam Pool hydroelectric projects

Facility Name	Communities Served
Swan Lake	Ketchikan
Tyee	Wrangell and Petersburg
Terror Lake	Kodiak
Solomon Gulch	Valdez and Glennallen

Source: AEA, 2010.

In 2002 these facilities were sold by AEA to a joint agency composed of member utilities that purchased the hydropower output from these projects. In 2009, the Terror Lake and Solomon Gulch projects were sold or transferred to the respective operating utilities, and ownership of the Swan and Tyee projects was changed to a new agency entitled the Southeast Alaska Power Agency (SEAPA). Interconnection of the Swan and Tyee projects was also completed with the construction of a 57 mile intertie by SEAPA in late 2009.

Also in Southeast Alaska, the **Snettisham** hydroelectric facility, providing power to Juneau, was owned by the federal government until Alaska Industrial Development and Export Authority (AIDEA) took it over in 1998. Alaska Electric Light and Power operates the facility and sells its power to its ratepayers. They completed the construction of the **Lake Dorothy** hydroelectric plant in 2009. The City of Sitka operates two hydroelectric plants at **Blue Lake** and **Green Lake**.

In Southcentral Alaska the largest hydroelectric facility in Alaska is at **Bradley Lake**, which is owned by AEA but operated by Homer Electric Association. The power from Bradley Lake is shared among the Railbelt utilities via the intertie according to a formal sharing agreement (Table 8.2).

Table 8.2 Bradley Lake hydroelectric utility shares

Utility	Share of Bradley Lake
Chugach Electric Association	30.4%
Anchorage Municipal Light & Power	25.9%
Homer Electric Association	12.0%
Matanuska Electric Utility	13.8%
Seward Electric Utility	1.0%
Golden Valley Electric Association	16.9%

Source: AEA, 2010.

The **Eklutna** hydroelectric facility was owned by the federal government until 1997 when it was jointly purchased by Anchorage Municipal Light and Power, Chugach Electric Association and Matanuska Electric Association. The facility ownership stakes are 53.3%, 30% and 16.7%, respectively. The **Cooper Lake** hydroelectric facility is owned and operated by Chugach Electric Association.

Table 8.3. Installed Hydroelectric Capacity in Alaska

Name	Service Area	Utility	Installed Capacity (kW)
Annex Creek	Juneau	AELP	3,600
Beaver Falls	Ketchikan	KEA	5,400
Black Bear Lake	Prince of Wales	AP&T	4,500
Blind Slough	Petersburg	Petersburg	2,000
Blue Lake	Sitka	Sitka	6,000
Bradley Lake	Railbelt	Shared	119,700
Chester Lake	Metlakatla	Metlakatla	1,000
Cooper Lake	Railbelt	Shared	19,400
Dewey Lakes	Skagway	AP&T	900
Eklutna	Railbelt	Shared	47,000
Falls Creek	Gustavus	Gustavus	800
Goat Lake	Upper Lynn Canal	AP&T	4,000
Gold Creek	Juneau	AELP	1,600
Green Lake	Sitka	Sitka	18,600
Humpback Creek	Cordova	CEC	1,250
Kasidaya Creek	Skagway	AP&T	3,000
Ketchikan Lakes	Ketchikan	Ketchikan	4,200
King Cove	King Cove	King Cove	850
Lake Dorothy	Juneau	AELP	14,300
Larson Bay	Larson Bay	Larson Bay	500
Lutak	Haines	AP&T	250
Ouzinkie	Ouzinkie	Ouzinkie	150
Pelican	Pelican	Pelican	700
Power Creek	Cordova	CEC	6,000
Purple Lake	Metlakatla	Metlakatla	3,900
Salmon Creek	Juneau	AELP	6,700
Silvis	Ketchikan	Ketchikan	2,100
Snettisham	Juneau	AELP	78,200
Solomon Gulch	Glennallen-Valdez	CVEA	12,000
South Fork Black Bear	Prince of Wales	AP&T	2,000
Swan Lake	Wrang/Pet/Ketch	SEAPA	22,600
Tazimina	Iliamna	INNEC	800
10 Mile	Haines	IPEC	550
Terror Lake	Kodiak	KEA	20,000
Town Creek	Akutan	Akutan	105
Tyee	Wrang/Pet/Ketch	SEAPA	20,000
Total operating installed capacity			434,655

Source: AEA, 2010.

Table 8.4. Planned New Hydroelectric Capacity in Alaska*

Name	Service Area	Utility	Installed Capacity (kW)
Chuniisax Creek	Atka	Atka	271
Reynolds Creek	Prince of Wales	AP&T	5,000
Total			5,271

**Projects with secured construction financing and all permits and final design are completed*

Source: AEA, 2010.

A number of smaller hydroelectric projects, owned by individual utilities, are located across the state, mostly in Southeast Alaska. There are also some very small, private facilities mostly owned by fish processors (Tables 8.3 and 8.4).

Geothermal

Ground-Source Heat Pumps

Used in many other parts of the US and the world, ground-source heat pumps (GSHPs) are less common in Alaska (Table 8.5). Heat pumps operate on the same principles as refrigeration or air conditioning systems, using electricity to ‘pump’ heat from a cold temperature source, such as the ground or a body of water, into a warmer area such as the inside of a home. Essentially, heat pumps take advantage of the moderate temperatures in the ground to boost efficiency and reduce the operational costs of heating and/or cooling systems. Disadvantages are the high capital cost associated with installing the system, either as a series of wells or buried horizontal loops, and lower efficiency in Alaska due to the relatively cool ground temperatures. Nonetheless, several designs developed for cooler northern climes are now on the market and combined with higher expected fuel costs this technology may be becoming more viable for the Alaska market.

Table 8.5. Commercial and institutional ground-source heat pumps

Location	Installer	Year Installed	Heating Capacity (MMBtu)
AEL&P Lemon Cr. Operations Center, Juneau	Alaska Electric Light & Power	1996	~1,000
Juneau Airport	City and Bureau of Juneau	2009-2011	1,056
Juneau Aquatic Center	City and Bureau of Juneau	2010-2011	1,240
Total			3,296

Source: Alaska Energy Authority, geothermal program manager, 2010.

Geothermal Electricity Production

Geothermal power is a mature technology and can provide base load power with a very high availability and capacity factor. However, given the current level of technology, it is very site specific and limited to areas with an elevated geothermal gradient that is typically evidenced by hot springs, geysers and fumaroles at or near the site. To produce electricity from geothermal resources, the heat of the earth is transferred to the surface by a fluid—generally water—where its heat is used to drive a turbine. Depending on the temperature of the resource,

different power cycles are used to convert the heat into electricity. In moderate- to high-temperature resources (greater than ~400°F) the geothermal fluid is flashed to steam before being sent through a turbine to produce electricity; this is referred to as a flash plant. In lower temperature resources, the geothermal fluid is sent through a heat exchanger, which transfers the heat to a fluid with a lower boiling point than water. In this binary cycle, the secondary fluid is then flashed to a vapor which is then used to drive a turbine.

Geothermal Direct Use

In cases where the geothermal resource is not sufficiently hot, or as a cascading use of spent geothermal fluid from a power plant, the geothermal fluid can be used directly for its heat content. The available direct uses for the geothermal fluid are temperature dependent, with higher temperature fluids being suitable for a greater array of purposes. For example, steam greater than 300 °F may be used to help process paper pulp, but since the pulp processing will not use all of the available heat, the steam may still be used for other industrial purposes, space heating, greenhouses, or mariculture.

Currently in Alaska, there is only one developed geothermal resource by direct use method. It is operated by Chena Power in Fairbanks with an installed capacity of 400kw (Table 8.6). Aside from the traditional use of baths, geothermal fluids are used for space heating, refrigeration, and food production for which it produces and consumes about 15.5 billion BTUs.

Table 8.6. Geothermal electricity production

Location	Installer	Year Installed	Capacity	Average Output
Chena Hot Springs	Chena Power	2006	400kW	266kWh

Source: Alaska Energy Authority, geothermal program manager, 2010.

Biomass

Biomass energy, in the form of heat and power, is created by the combustion or gasification of carbon-based plant matter (Table 8.7). Alaska's major biomass energy resources are wood, sawmill residue, fish processing byproducts, agricultural crops and waste, and municipal waste. Biomass energy is generally considered a firm energy source, available as/when needed. Woody biomass is the most commonly used form of biomass fuel. It is used directly as firewood, or it can be processed into woodchips or densified into pellets or bricks. Processing biomass ranges from the simple (bucking logs into suitable lengths), to chipping or chunking (chippers are commonly available machinery), to the more complex (densification that involves chipping, drying, and compressing biomass into pellets, bricks, or logs). As the levels of complexity rise, the benefits of proper handling and storage of the fuel become more pronounced. Densification, however, increased the heat per volume ratio potentially reducing transportation and handling costs per Btu.

Burning wood is a traditional form of home heating in Alaska. Conventional wood stoves can be found in homes and community buildings across the state. Recent technological advances have resulted in a new generation of efficient wood-fired heating systems. These hydronic (hot water) systems work by producing heat through combustion directly, or by creating

transportable heat by capturing the heat from burning wood in a heat-storage medium such as water. This type of system can be used to heat multiple adjacent buildings by piping heated water through an interconnected or “district” loop. This system can reduce or even eliminate the amount of heating oil needed in each building.

Table 8.7. Community-level biomass thermal installations

Location	Owner	Year Installed	Installed Capacity MMBtu/hr	Estimated Annual Usage MMBtu/yr	Technology
Dot Lake	Village of Dot Lake	1998	0.95	690	Garn - cordwood
Dry Creek	Logging and Milling Associates	2004	1.2	3,500	Decton - chip
Tanana	City of Tanana	2007	0.85	1,380	Garn (2) - cordwood
Copper Center	Regal Enterprise	2007	1.5	7,000	Decton - chip
Craig	City of Craig	2008	4	4,830	Chiptech - chip
Ionia	Village of Ionia	2008	1	1,380	Garn (2) - cordwood
Homer	Barrow Mechanical	2008	0.425	1,800	Garn - cordwood
Tok	Alaska Gateway School District	2010	4.5	8,640	Messersmith - chip
Gulkana	Gulkana Village Council	2010	1	2,278	Garn – cordwood Tarm – pellet
Haines	Chilkoot Indian Association	2010	0.37	570	Pellergy (2) - pellet

Source: Alaska Energy Authority, biomass program manager, 2010.

Combined Heat and Power

Combined Heat and Power (CHP) is the concurrent production of electricity or mechanical power and useful thermal energy from a single source of energy. Most applications in Alaska utilize heat recovered from diesel generators. CHP may be regarded as a supply-side energy efficiency measure. Typical applications for heat recovery are environmental space heat for community buildings and augmented electric power generation.

The most efficient use of recovered heat is to use it directly as heat. This avoids efficiency losses that occur when heat is transformed to another kind of energy. Heat recovery may use one or all of the diesel generator’s waste heat sources including the exhaust stack, jacket water, and charge air. The recovered heat can be used for space heating, domestic hot water, or for tempering municipal water supplies to prevent freezing and facilitate treatment.

There are promising methods for recovered heat to electric power conversion: Organic Rankine Cycle (ORC), Kalina cycle, exhaust gas turbine, and direct thermoelectric conversion systems. The Organic Rankine Cycle and Kalina cycle systems may be preferred because of their availability, ease of installation, and efficiency (Table 8.8).

Table 8.8. Community-level biomass combined heat and power installations

Location	Installer	Year Installed	Installed Capacity	Technology
North Pole	Chena Power	2010-2011	500 kW	Biomass fired ORC

Source: Alaska Energy Authority, biomass program manager, 2010.

Diesel Heat Recovery

Rural Alaska relies heavily on diesel engine technology as the main energy source for producing electricity and fuel oil as the predominant supply for space heating. Recovery of “waste” heat from diesel generation has great economic potential for remote Alaska communities. Typical applications for heat recovery are space heating for community buildings and augmented electric power generation. The most efficient use of waste heat is to use it directly as heat. This avoids efficiency losses that occur when heat is transformed to another kind of energy. The recovered heat can be used for space heating, domestic hot water, chilling and ice making, or for tempering municipal water supplies to prevent freezing and facilitate treatment.

In Alaska, there are over 90 operational systems using recovered heat from diesel generators for space heating and water heating needs. A database is in development by the Alaska Energy Authority to document the status of all heat recovery systems.

Wind

Wind energy, which is abundant in Alaska, is being incorporated into more community energy systems, moving from the initial demonstration phase toward a technology being considered for many communities. Alaska’s first utility wind farm was installed in 1997, when three Entegry (formerly Atlantic Orient Corporation or AOC) turbines were erected in Kotzebue. In the next six years, the Kotzebue farm increased its capacity from 195 kW to 1.14 MW. Kotzebue was the proving ground for many of the technological challenges that Alaskans faced as additional wind turbines were erected over the next ten years. Since that first installation, significant development and innovations have occurred. The Alaska Village Electric Cooperative (AVEC) is incorporating wind systems into a number of their power systems in western Alaska.

As of February 2011, 21 wind projects were completed in communities around the state (Table 8.9), but only three (in Kotzebue, Wales, and Saint Paul Island) have been operating for more than a few years. Initial funding for Kotzebue and Wales came from the U.S. Department of Energy (DOE). Beginning in 2004, the Denali Commission funded projects in five communities (Selawik, Hooper Bay, Kasigluk, Savoonga, and Toksook Bay). In 2008, the Alaska State Legislature created the Renewable Energy Fund, a competitive program established to invest in renewable energy. Wind projects have received a substantial portion of the funds available through this program, which the Alaska Energy Authority administers (Figure 8.1). The total installed capacity in these projects is approximately 13.1 MW. An additional 4 MW are currently under construction.

Table 8.9. Installed wind capacity, February 2011

Location	Installer	Year Installed	Installed Capacity (kW)	Type of Turbines
Kotzebue	Kotzebue EA	1997	1,140	(15) Entegrity; (1) Vestas; (1) Northwind
St. Paul Island	TDX Power	1998	675	(3) Vestas V-27
Wales	AVEC, KEA, and NREL	2002	130	(2) Entegrity
Port Heiden/Pilot Point	Sustainable Energy Com. of AK Peninsula	2004	20	(2) 10 kW Bergey
Kasigluk	AVEC	2006	300	(3) Northwind 100
Nome	Bering Straits Native Corp. and Sitnasuak	2010	1,170	(18) Entegrity
Delta	AEP	2008(100)/2010(900)	1,000	(1) Northwind 100 (1) EWT 900
Perryville	Native Village of Perryville	2008	24	(10) Skystream 3.7
Healy	AEP		12	(5) Skystream 3.7
Tin City	TDX Power	2008	225	Vestas V-27
Hooper Bay	AVEC	2009	300	(3) Northwind 100
Kodiak	Kodiak EA	2009	4,500	(3) GE 1.5
Selawik	AVEC	2003	260	(4)Entegrity
Toksook Bay	AVEC	2006(300)/2010(100)	400	(4) Northwind 100
Savoonga	AVEC	2009	200	(2) Northwind 100
Unalakleet	UVEC	2009	600	(6) Northwind 100
Gambell	AVEC	2010	300	(3) Northwind 100B
Chevak	AVEC	2010	400	(4) Northwind 100B
Quinhagak	AVEC	2010	300	(3) Northwind 100B
Mekoryuk	AVEC	2011	200	(2) Northwind 100B
Nikolski	Umnak Power	2011	65	(1) Vestas V-15
Sand Point	Aleutian Wind Energy	2011	1,000	(2) Vestas V-39

Source: AEA wind program data, 2011.

ALASKA ENERGY BALANCE

A. Overview

Table 9.1 and Figure 9.1 summarize the amount of energy extracted, produced, exported, or used in Alaska in 2008. The different types of fuels are listed across the top of the table and the disposition of energy in Alaska is listed down the side.

Compared to the 2001 Energy Statistics report, a number of data sources are no longer available. In particular, details regarding exports and imports are not presented. However, the available data still provide a reasonable snapshot of the energy flow in Alaska.

Total extraction: Energy in Alaska amounted to the equivalent of about 5,090 trillion Btus in 2008. This extracted energy was in the form of coal, natural gas, crude oil, natural gas liquids, wood, waste, geothermal and water and wind power.

Net Extraction: About 3,105 trillion Btus of the total extracted energy was re-injected into the ground in the form of natural gas to help lift additional oil out of North Slope wells. In addition, almost 260 trillion Btus of natural gas and crude oil was used during extraction and processing of oil and gas operations. The *net extraction* of energy in Alaska equals total extraction minus this energy that was re-injected or used during the process of extracting or transporting oil and gas. This *net extraction* of energy in Alaska amounted to just over 1,725 trillion Btus in 2008. Figure 9.2 summarizes the composition of total and net extraction of energy in Alaska. About 88% of the net energy extracted in Alaska is in the form of crude oil that is either processed in Alaska or exported.

Processed Products: Alaska currently has six petroleum refineries and one natural gas processing plant that process crude oil and natural gas.⁴ These plants and refineries produced liquid natural gas, jet fuel, motor gasoline, and diesel. Agrium Inc. produced ammonia and urea in Alaska, but curtailed its production operations in 2007 due to limited availability of natural gas; production for 2007 was about 325,000 tonnes. Petroleum and natural gas products amount to the energy equivalent of about 365 trillion Btus.

Exports: Alaska exported 1,238 trillion Btus of raw energy products, including crude oil and coal. In addition, about 75 trillion Btus of energy in the form of refined petroleum products were exported from the state. Crude oil contributed the largest share, about 90% of energy exports from the state.

Electric Power: As discussed in other parts of this report, electric utilities used energy inputs to generate electricity. The utilities used *as total inputs* the energy equivalent of about 67 trillion Btus of coal, natural gas, liquid petroleum fuels. In addition, the equivalent of about 4 trillion

⁴ Alaska's six refineries are: BP Exploration Alaska Inc, Prudoe Bay; Conoco Phillips Alaska Inc., Prudoe Bay; Flint Hills Resources Alaska, LLC, North Pole; Petro Star Inc., North Pole, Valdez; Tesoro Alaska Petroleum Co., Kenai. Natural Gas terminal: Conoco Philips, Kenai Alaska LNG.

Btus of electricity was produced from waterpower and wind. In the process of generating electricity, utilities *used* 45 trillion Btus of energy. The utilities generated *as output* the energy equivalent of 22 trillion Btus of generated electric power for sales to consumers.⁵ As shown in Figure 9.3, most of the electric power generated by utilities was produced from natural gas.

Imports: Alaska imported a variety of refined petroleum products. These products were shipped from California (13%), Washington (41%), Canada (27%) and other foreign locations (18%). The equivalent of about 23 trillion Btus was imported in the form of refined petroleum products.

Net Domestic Consumption is composed of five components: residential, commercial, industrial, transportation and electric sector consumption. Notably, net domestic consumption *does not* include energy used by utilities for electric power generation or energy used during petroleum product processing. Net domestic consumption in Alaska amounted to 444 trillion Btus in 2008. Transportation consumption was by far the largest component of net domestic consumption and amounted to 215 trillion Btus, followed by the electric sector which used 67 trillion Btus as inputs to produce electricity. Residential consumption totaled about 33 trillion Btus. Commercial consumption was about 38 trillion Btus. Industrial consumption (including military bases) totaled 51 trillion Btus. About 41 trillion Btus were consumed in the state but we were unable to attribute them to a particular sector.

Consumers used the “net domestic consumption” of energy in many different ways. We have estimates of the energy consumed for some of these specific uses:

- **Transportation use:** The single largest consumption in transportation was in the form of jet fuel which consumed the energy equivalent of 135 trillion Btus (24 million barrels). A distant second was consumption of about 41 trillion Btus (7 million barrels) of distillate fuel. Motor Gasoline consumption was about 34 trillion Btus (7 million barrels). Consumption of other petroleum products amounted to about 3 trillion Btus.
- **Industrial uses:** Alaska industries (other than oil and gas extraction or processing) used 51 trillion Btus for a variety of industrial uses, including heat, generating power, and processing materials. We do not have sufficient information to determine how much energy these industrial consumers used for each of these uses.
- **Electric Sector:** Electric utilities in Alaska consumed about 67 trillion Btus and generated about 6.5 million megawatt-hours of electricity.
- **Other uses:** After accounting for transportation and industrial uses, the remaining 71 trillion Btus were used primarily by residential and commercial consumers for a variety of uses. Also, about 41 trillion Btus were consumed in the state but we were unable to attribute them to a particular sector.

⁵ Electric power and heat generated by industrial users other than utilities is accounted for in the summary table under “industrial net domestic consumption” of energy.

Table 9.1 Summary of Energy Balance in Alaska in Trillion Btus, 2008

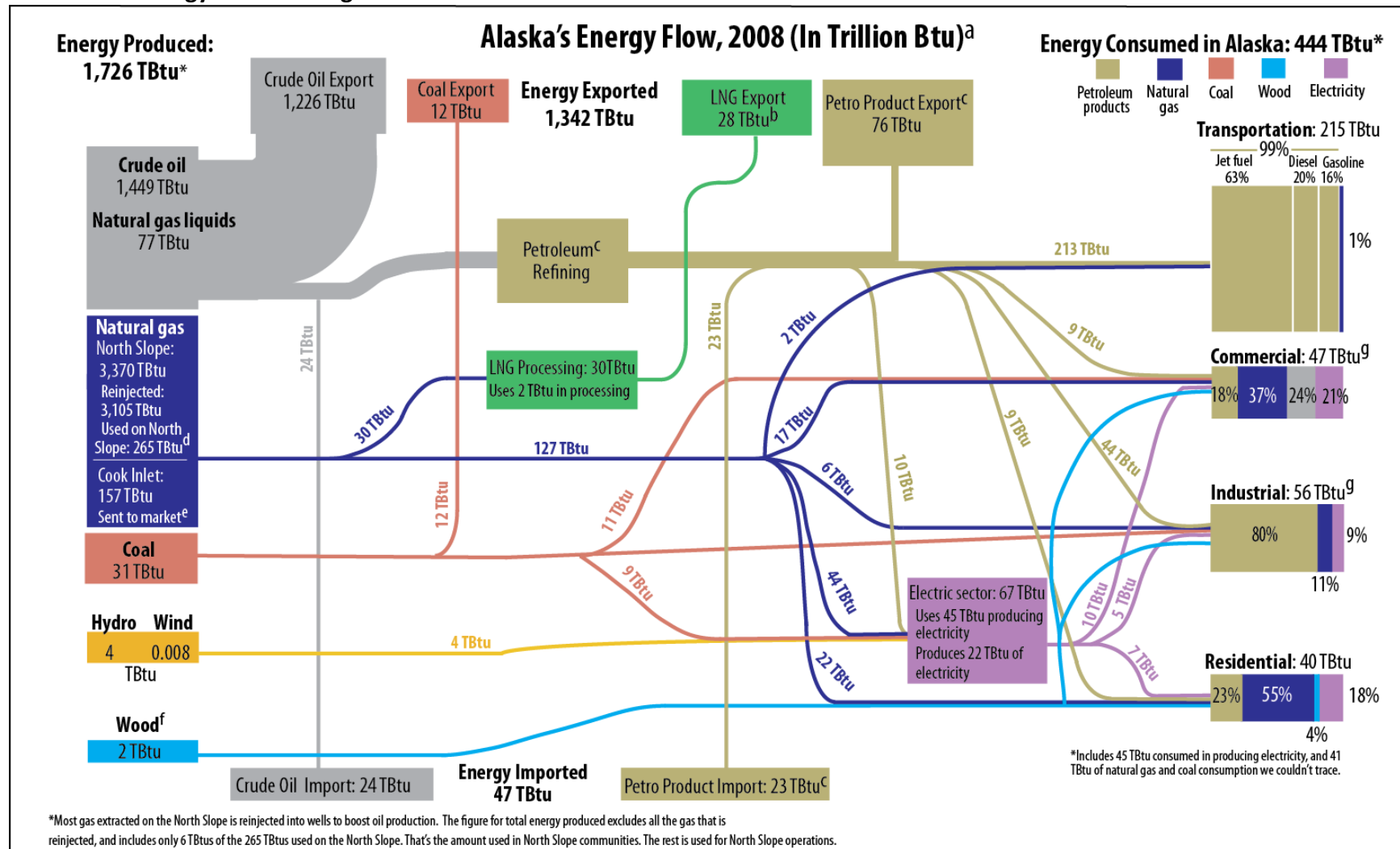
	Coal	Natural Gas	Petroleum							Renewables		Electricity	TOTAL
			Crude Oil	Natural Gas Liquids	Petroleum Products								
					Total Refined Petroleum Products	All Distillate Fuel	Jet Fuel	Motor Gasoline	Other Petroleum Products	Wood & Waste	Hydro-electric & Wind		
Gross Extraction	31	3,527	1,449	77						2	4		5,090
- Re Injected Gas		3,105											3,105
- Other Use during Extraction		259											259
= Net Extraction	31	163	1,449	77						2	4		1,726
- Raw Exports	12		1,226										1,238
+Net Contribution from Stocks	0.003												0.003
= Net Domestic Disposition	20	163	223	77	339					2	4		489
+ Imports			24		23								47
= Gross Domestic Disposition	20	163	247	77	362					2	4		550
-Processing Use		2											2
-Net Product Exports		28			76							104	
= Net Domestic Consumption	20	133			285	81	135	35	34	2	4	22	444
Residential		22			9	7			2	1.45		7	33
Commercial	11	17			9	7		1	1	0.23		10	38
Industrial	0.003	6			44	16		0.385	28	0.05		5	51
Transportation		2			213	41	135	34	3				215
Electric Sector	9	44			10	10					4		67
Used in Production	7	31			7	7						0.1329	45
Net Output	1	13			4	4					4		22
Electricity Output (Thousand MWh)	397	3,942			1,041	1,041					1,132		6,513
Unclassified	1	40											41
Conversion Factors	19.9880	1027.0	5.8000	3.7040		5.8250	5.6700	5.2530	6.0650	20.0000	3.4120	3.4120	
	MMBTU per Short Ton	BTU per Cubic Foot	MMBTU per Barrel	MMBTU per Barrel		MMBTU per Barrel	MMBTU per Barrel	MMBTU per Barrel	MMBTU per Barrel	MMBTU per Cord	MMBTU per MWh	MMBTU per MWh	

Source: US Energy Information Agency, Alaska Department of Natural Resources, and US Army Corps of Engineers, Waterborne Commerce of the US, Alaska Energy Authority, ISER Calculations.

NOTES:

- (1) Total Renewables is distributed as follows: Wood, 96.4%; Waste, 2.8%; Geothermal, 0.9%; GSHP, 0.2%.*
- (2) Conversion Factors from Annual Energy Review 2008, EIA*
- (3) Numbers may not match exactly due to independent rounding*
- (4) Raw Exports: Figures for 2008 coal exports vary by sources: The Waterborne Commerce Statistics lists 578,630 short tons of coal exports; The Railroad Corporation that transports the coal from Usibelli Mine to the Seward port reports 75 'coal trains' carrying about 6,350 tons of coal per train; meaning about 476,250 tons; The Usibelli Mine website notes a contract to supply Korea with 500,000 tons of coal per year from 2007-09 plus additional sporadic exports to Chile.*
- (5) Coal Energy for Electricity used in Production is an estimated based on the presented data.*
- (6) Coal Residential Consumption was reported by EIA to be 56,000 short tons. However, this figure is estimated using a formula based on national average consumption that does not represent the Alaska residential market for coal. Although, there may be some residential consumption of coal in the state, we believe it is minimal and did not find evidence to or data to the contrary; hence we report no residential coal consumption.*
- (7) Natural Gas Gross Extraction: Estimated. Vary by sources: DNR, 3,435; EIA, 3,416; AOGCC, 3283.*
- (8) Natural Gas Other Use During Extraction is EIA reported data as lease and plant use.*
- (9) Natural Gas Energy for Electricity used in production was calculated by ISER as the difference of Total Energy for Electricity and Net Output.*
- (10) Crude Oil Other use during extraction: No data available, it was estimated using the proportion in previous 2001 report.*
- (11) Crude Oil Exports/Imports: Waterborne Commerce Statistics reports this information in Short Tons. Conversion from Metric Tons to Barrels of oil may range from 6.95 to 7.33 barrels per Metric Ton. This estimates used 7 barrels per Metric ton.*
- (12) Total Refined Petroleum Products Exports/Imports: Estimated from Waterborne Statistics reports using a conversion factor of 8.03 barrels per Metric Ton, an average of the conversion factors for diesel, motor gasoline and jet fuel.*
- (13) Distillate Fuel Energy for Electricity used in production: Estimated based on the data presented in the same way as footnote 6.*
- (14) Wind accounts for only 0.2% of Total Hydro & Wind.*

FIGURE 9.1. Energy Balance Diagram



Source: US Energy Information Agency, Alaska Department of Natural Resources, and US Army Corps of Engineers, Waterborne Commerce of the US, Alaska Energy Authority, ISER Calculations.

NOTES:

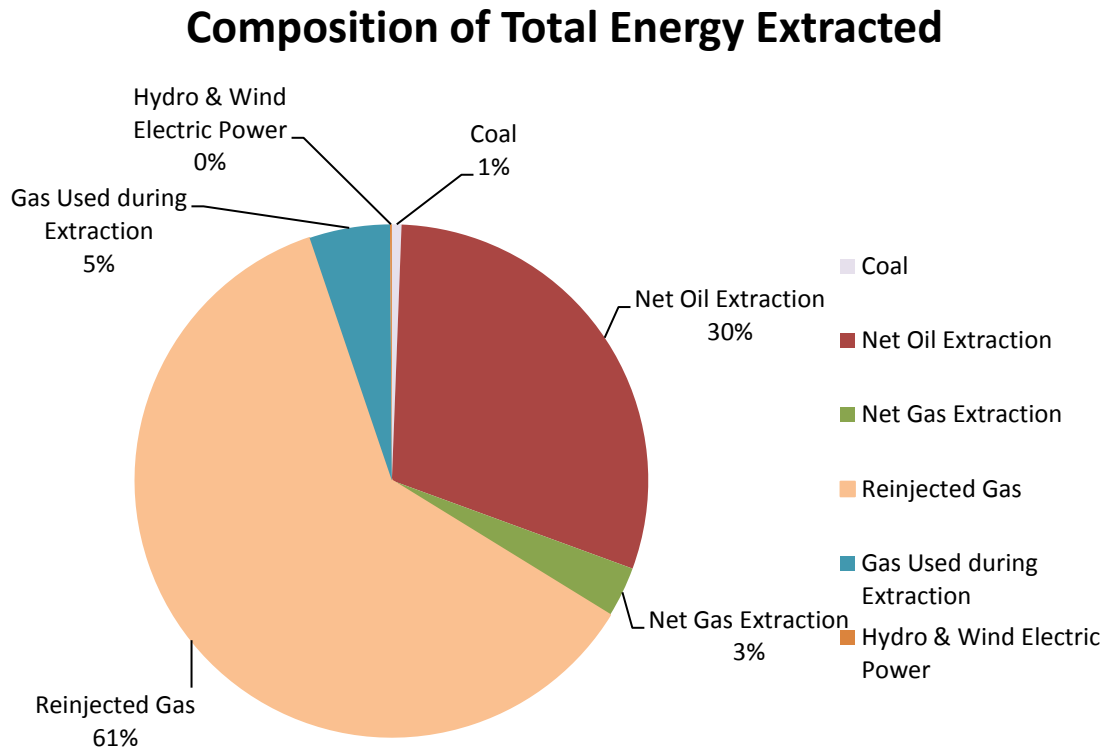
- a) *Figures are author's estimates, based on available information. A Btu (British thermal unit) is a standard measure of energy content (or heat value) that is approximately the amount of energy needed to heat one pound of water one degree Fahrenheit.*

How Much is a Trillion BTU?

Crude oil:	172, 414 barrels
Natural gas:	972,763 Mcf
Coal:	50,030 short tons
Wood:	50,000 cords
Electricity:	293,083,236 KWh
Diesel:	7,210,300 gallons
Gasoline:	7,995,431 gallons

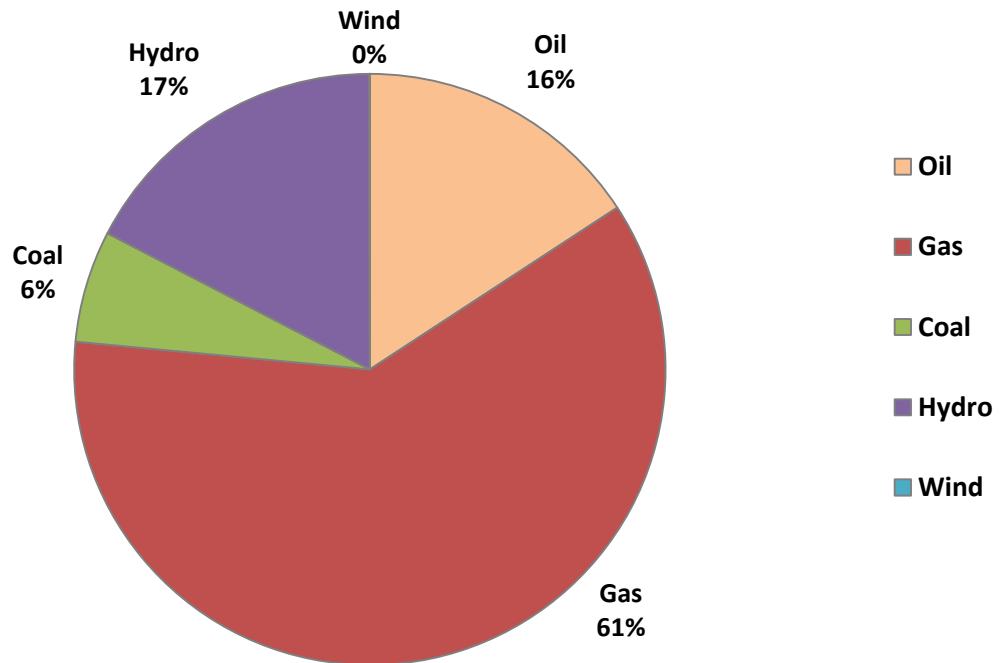
- b) *In 2008 some Cook Inlet natural gas was being exported as liquefied natural gas (LNG), but in 2011 Alaska's only LNG plant stopped operation. It is possible that in the future it will resume production.*
- c) *Btus of crude oil going into the Alaska market do not equal Btus of petroleum products consumed, even when imports and exports are accounted for. Partly that's because of imprecise data on imports and exports. But some energy is also used in the refining process, and we don't have estimated of that.*
- d) *The North Slope oil producers used 259 TBtus of natural gas for their own operations, and the North Slope communities of Barrow and Nuiqsut used 6 TBtus.*
- e) *We were unable to trace consumption of about 40 TBtus of the estimated 157 TBtus of Cook Inlet natural gas extracted.*
- f) *Wood accounts for about 96% of this energy, but also included are small amounts of energy from municipal solid waste and other biological waste, geothermal sources and ground-source heat pumps.*
- g) *The commercial sector includes businesses, government offices and facilities and religious and other organizations. The industrial sector is made up of industries that produce or process goods, including petroleum, commercial fishing, fish processing, agriculture and mining industries. Wood generates about less than 0.5% of the energy for commercial and industrial uses, and coal generates less than 0.5% of the energy for industrial uses.*

FIGURE 9.2 Composition of total energy extracted



Source: ISER Calculations

Figure 9.3 Utility electricity generation by fuel type



Source: ISER Calculations

B. Commodities

Table 9.2 summarizes the quantities of energy commodities extracted, processed, exported, or used in Alaska.

Coal: In 2008, about 1,538,000 short tons of coal were extracted from the Usibelli Coal Mine near Healy, Alaska. About 427,000 short tons were used as inputs for electric power generation in Alaska. About 579,000 short tons were shipped through the Port of Seward to mostly South Korea and some sporadic exports to Chile. Also, 558,000 short tons were sold to industrial and commercial customers, including Eielson Air Force Base and the University of Alaska Fairbanks.⁶ Doyon Utilities consumed about 240,000 short tons of coal to provide Fort Greely, Fort Richardson and Fort Wainwright heating and electric services. Other consumers also used the coal for heating and power generation.

Natural Gas: Almost 3,400 billion cubic feet of natural gas were extracted in 2008 from the North Slope and Cook Inlet. About 89% of this gas was re-injected into the ground to assist with lifting oil to the surface on the North Slope. Another 252 billion cubic feet were used to produce power and heat for North Slope facilities and the TAPs pump stations. The Phillips Petroleum gas-to-liquids plant near Nikiski processed natural gas from Cook Inlet into liquid natural gas and exported 27 billion cubic feet. About 43 billion cubic feet of natural gas were used to generate electricity by utilities in Alaska. Residential, commercial, military, and industrial consumers in Alaska used about 46 billion cubic feet of natural gas, much of it for heating.

Petroleum: In 2008, 250 million barrels of petroleum were extracted from the North Slope and Cook Inlet as either crude oil or natural gas liquids. Alaska refineries in North Pole, Valdez, Kenai, and the Nikiski processed a total of about 61 million barrels into refined products. All of the crude oil that was not refined in state was exported to the Lower 48 or Pacific Rim markets, about 211 barrels. Most of the jet fuel refined in the state is used as fuel for international air carriers flying through the state. Alaska consumers use about 12 million barrels of distillate fuel, 24 million barrels of jet fuel, and 7 million barrels of motor gasoline. Most of these petroleum products come from Alaska refiners. However, Alaska also imported about 4 million barrels of refined petroleum products. Alaska refineries also export some motor gasoline.

Electricity: Other chapters in this report discuss the generation and use of electricity in more detail. Residential and commercial consumers use most of the 6.5 million megawatt hours of electric power generated in Alaska. Alaska neither exports nor imports electric power.

⁶ From Usibelli Coal Mine web page <http://www.usibelli.com/who.html>

Table 9.2 Summary of Energy Balance in Alaska in Commodity Units, 2008

	Coal	Natural Gas	Petroleum							Renewables		Electricity
			Crude Oil	Natural Gas Liquids	Petroleum Products							
					Total Refined Petroleum Products	All Distillate Fuel	Jet Fuel	Motor Gasoline	Other Petroleum Products	Wood	Hydro-electric & Wind*	
	Thousand Short Tons	Billion Cubic Feet	Million Barrels	Million Barrels	Million Barrels	Million Barrels	Million Barrels	Million Barrels	Million Barrels	Thousand Cords	Thousand Megawatt Hours	Thousand Megawatt Hours
Gross Extraction	1,538	3,435	250	21							1,130	
- Re Injected Gas		3,024										
- Other Use during Extraction		252										
= Net Extraction	1,538	159	250	21							1,130	
- Raw Exports	579		211									
+Net Contribution from Stocks	62											
= Net Domestic Disposition	1,021	159	38	21	58					84	1,130	
+ Imports			4		4							
= Gross Domestic Disposition	1,021	159	43	21	62					84	1,130	6,516
-Processing Use		2										
-Net Product Exports		27			12							
= Net Domestic Consumption	1,021	129			50	14	24	7	6	84	1,130	6,516
Residential		21			2	1			0.3	72		2,129
Commercial	558	17			1	1		0.1	0.2	12		2,851
Industrial	0.1	6			7	3		0.1	5	1		1,344
Transportation		2			38	7	24	7	0.5			
Electric Sector	427	43			2	2						
-Used in Production	359	30			1	1						39
Net Output (electricity)	68	13			1	1						
Net Output, Thousand MWh	397	3,942			1,041	1,041					1,132	
Unclassified	36	39										152

Source: US Energy Information Agency, Alaska Department of Natural Resources, and US Army Corps of Engineers, Waterborne Commerce of the US, Alaska Energy Authority, ISER Calculations.

NOTES:

Total Renewables is distributed as follows: Wood, 96.4%; Waste, 2.5%; Geothermal, 0.9%; GSHP, 0.2%.

(1) Conversion Factors from Annual Energy Review 2008, EIA

(2) Numbers may not match exactly due to independent rounding

(3) Raw Exports: Figures for 2008 coal exports vary by sources: The Waterborne Commerce Statistics lists 578,630 short tons of coal exports; The Railroad Corporation that transports the coal from Usibelli Mine to the Seward port reports 75 'coal trains' carrying about 6,350 tons of coal per train; meaning about 476,250 tons; The Usibelli Mine website notes a contract to supply Korea with 500,000 tons of coal per year from 2007-09 plus additional sporadic exports to Chile.

(4) Coal Energy for Electricity used in Production is an estimated based on the presented data.

(5) Coal Residential Consumption was reported by EIA to be 56,000 short tons. However, this figure is estimated using a formula based on national average consumption that does not represent the Alaska residential market for coal. Although, there may be some residential consumption of coal in the state, we believe it is minimal and did not find evidence to or data to the contrary; hence we report no residential coal consumption.

(6) Natural Gas Gross Extraction: Estimated. Vary by sources: DNR, 3,435; EIA, 3,416; AOGCC, 3283.

(7) Natural Gas Other Use during Extraction is EIA reported data as lease and plant use.

(8) Natural Gas Energy for Electricity used in production was calculated by ISER as the difference of Total Energy for Electricity and Net Output.

(9) Crude Oil Other use during extraction: No data available, it was estimated using the proportion in previous 2001 report.

(10) Crude Oil Exports/Imports: Waterborne Commerce Statistics reports this information in Short Tons. Conversion from Metric Tons to Barrels of oil may range from 6.95 to 7.33 barrels per Metric Ton. This estimates used 7 barrels per Metric ton.

(11) Total Refined Petroleum Products Exports/Imports: Estimated from Waterborne Statistics reports using a conversion factor of 8.03 barrels per Metric Ton, an average of the conversion factors for diesel, motor gasoline and jet fuel.

(12) Distillate Fuel Energy for Electricity used in production: Estimated based on the data presented in the same way as footnote 6.

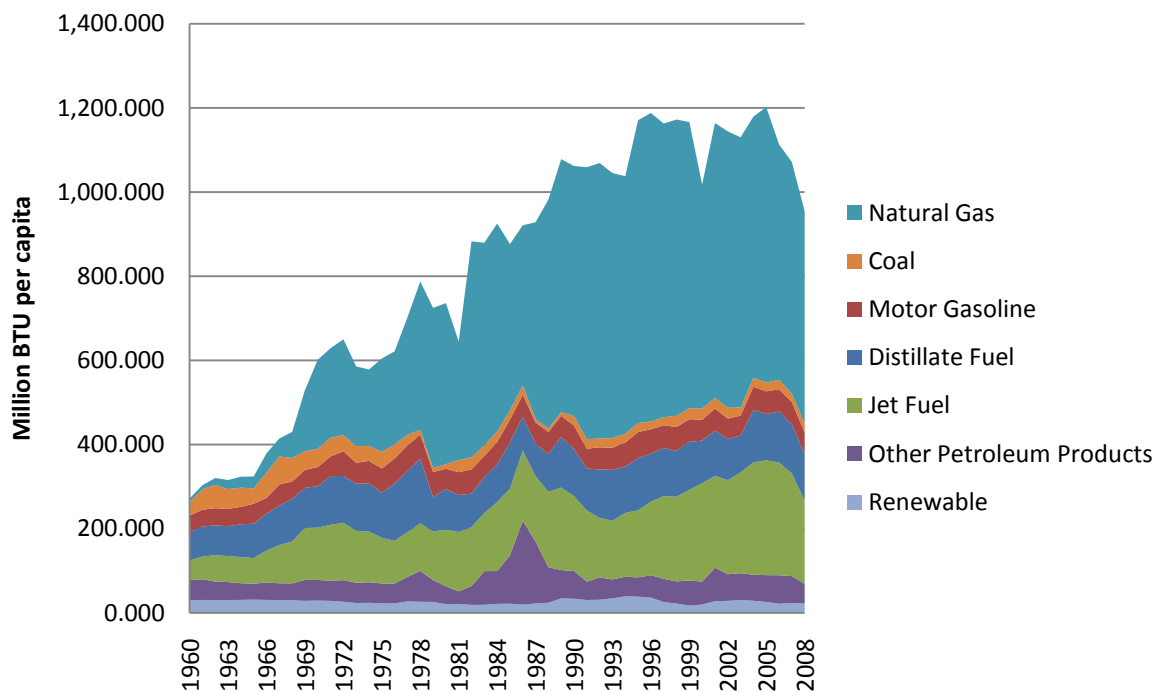
(13) Wind accounts for only 0.2% of Total Hydro & Wind.

C. Historical Trends

Using data on the consumption of energy from the US Energy Information Administration, we can track the amount of energy used since statehood in Alaska. Notably, these estimates of consumption from the EIA include the industrial use of natural gas on the North Slope during oil and gas extraction processes. As a result, they are higher than our estimates of gross consumption, which do *not* include the use of natural gas during extraction.

Natural gas became the predominant source of energy used in Alaska after oil and gas production began in Cook Inlet, in the late 1960s, shown below in Figure 9.4. When oil and gas production began on the North Slope in the late 1970s, natural gas consumption by industrial users increased dramatically because its use to power North Slope operations. All other fuels -- including diesel, motor gasoline, jet fuel, and coal, have contributed relatively stable shares of total energy consumption *per capita* in the state.

FIGURE 9.4 Consumption per capita of energy in Alaska



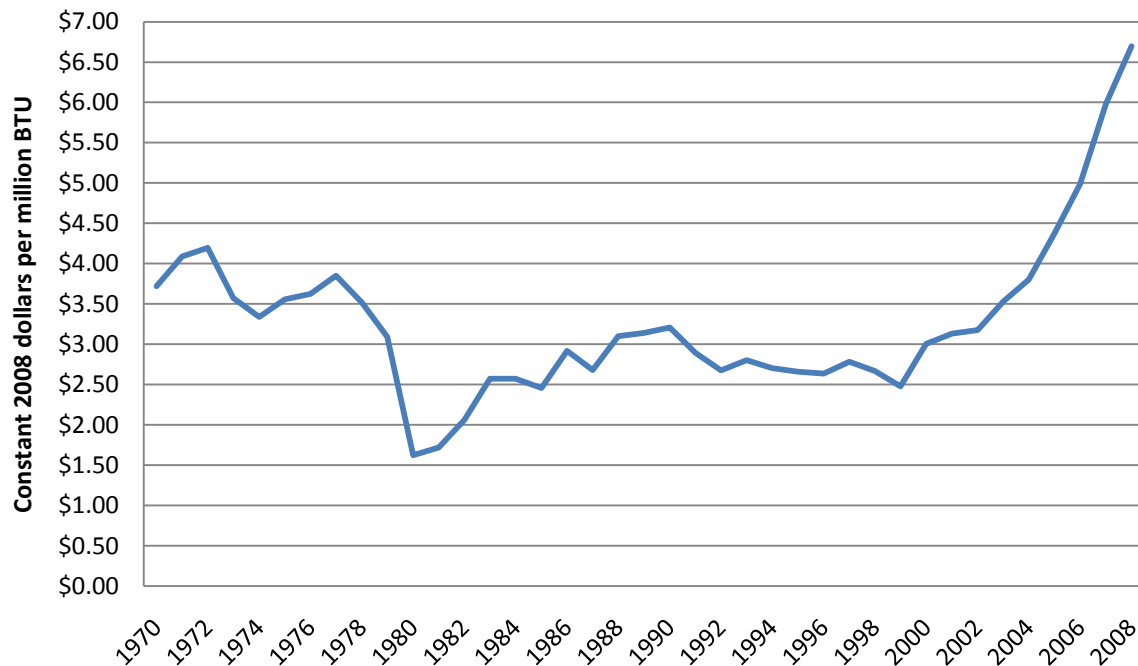
Note: The US Energy Information Agency estimates of energy consumption include energy consumed during oil and gas extraction.

Source: US Energy Information Agency.

Natural gas has consistently been the least expensive form of energy and averaged about \$3.27 per million Btu (Figure 9.5). However, prices have risen sharply over the last decade. Since 2000, natural gas prices averaged \$4.30 per million Btu. Electricity became less expensive over time as more power was generated from relatively cheaper natural gas (Figure

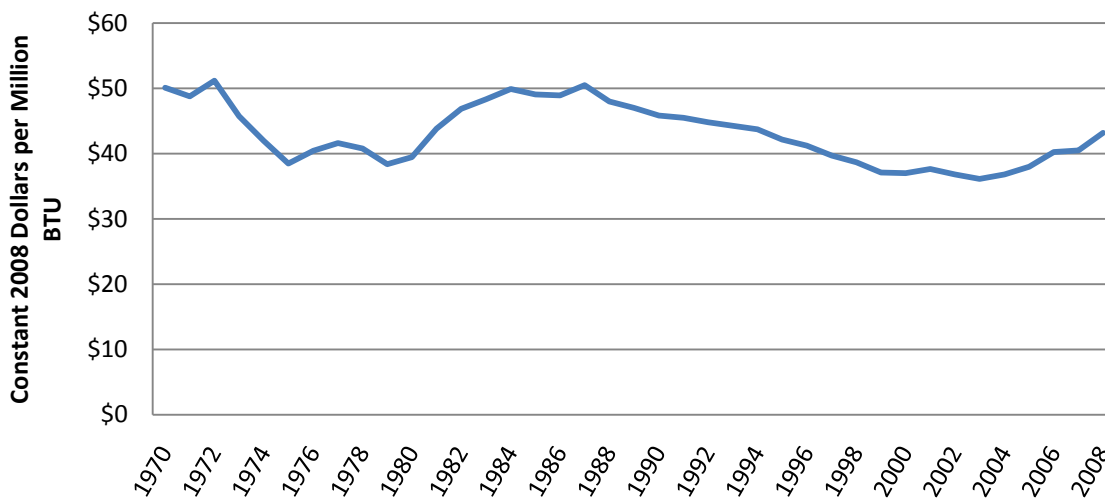
9.6). The price of petroleum products closely follows the price of crude oil over time (Figure 9.7).

FIGURE 9.5. Average price of natural gas for all consumers in Alaska



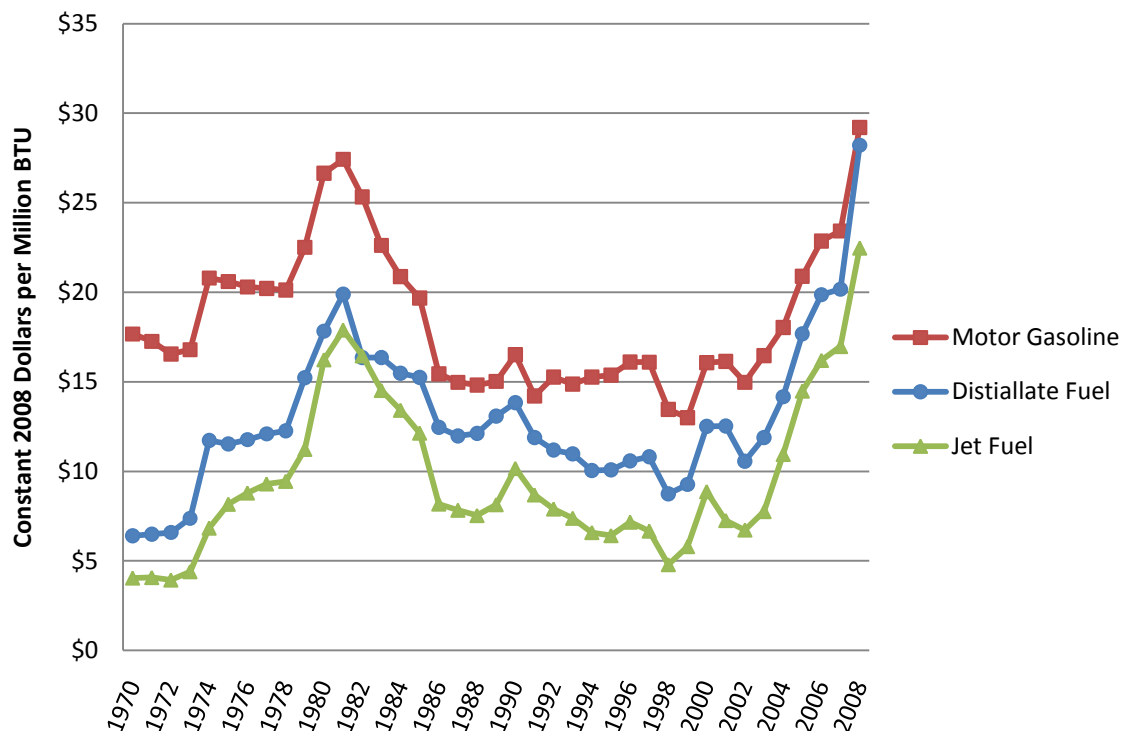
Source: US Energy Information Agency

FIGURE 9.6 Average price of electricity for all consumers



Source: US Energy Information Agency

FIGURE 9.7 Average prices of petroleum products in Alaska



Source: US Energy Information Administration

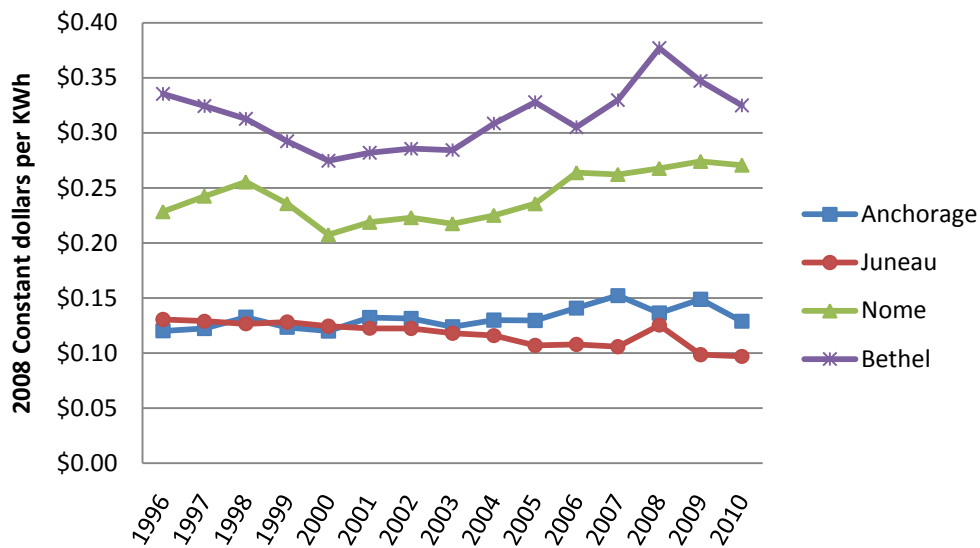
Prices of energy vary significantly throughout the state. The Cooperative Extension Service of the University of Alaska Fairbanks has conducted the Alaska Food Cost Survey since 1996. The survey includes prices for different types of energy that households depend on for electricity and space heating. The Figures 9.8 to 9.12 show prices overtime in four selected Alaska communities, Anchorage, Bethel, Juneau and Nome, for electricity, heating oil, gasoline, and propane.

Prices for electricity remained relatively stable for Anchorage and Juneau, which obtain their electricity mostly from natural gas and hydroelectric generation, respectively. On the other hand, prices for Bethel and Nome were more variable as the prices of crude and diesel fluctuate; these communities also have significantly higher prices.¹

Heating oil, gasoline and propane follow very similar trends though gasoline has slightly higher prices than heating oil. Both types of fuel have sharply and steadily increase over the last decade and are expected to continue rising over time.

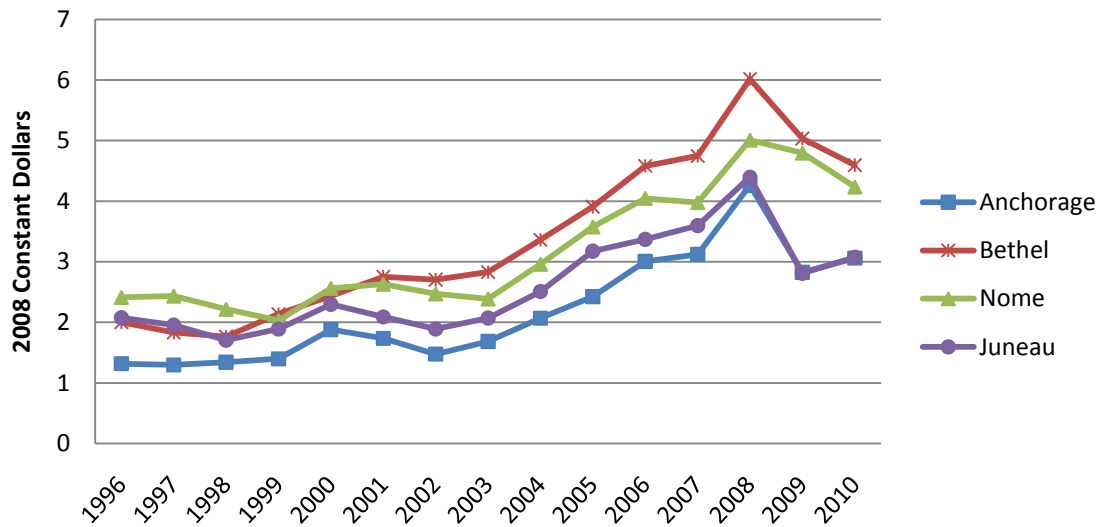
¹ UAF Cooperative Extension Service data include PCE subsidies.

FIGURE 9.8 Price for electricity over time by community



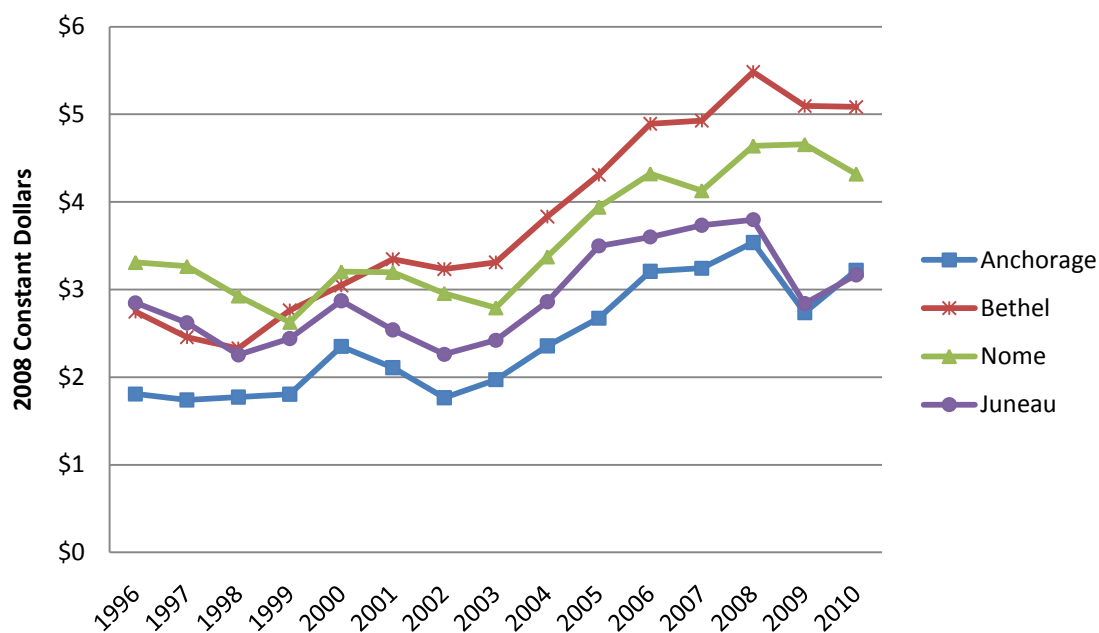
Source: Alaska Food Cost Survey, Cooperative Extension Services at the University of Alaska Fairbanks. Nome and Bethel prices include PCE subsidy offsets.

FIGURE 9.9 Price of a gallon of heating oil over time by community



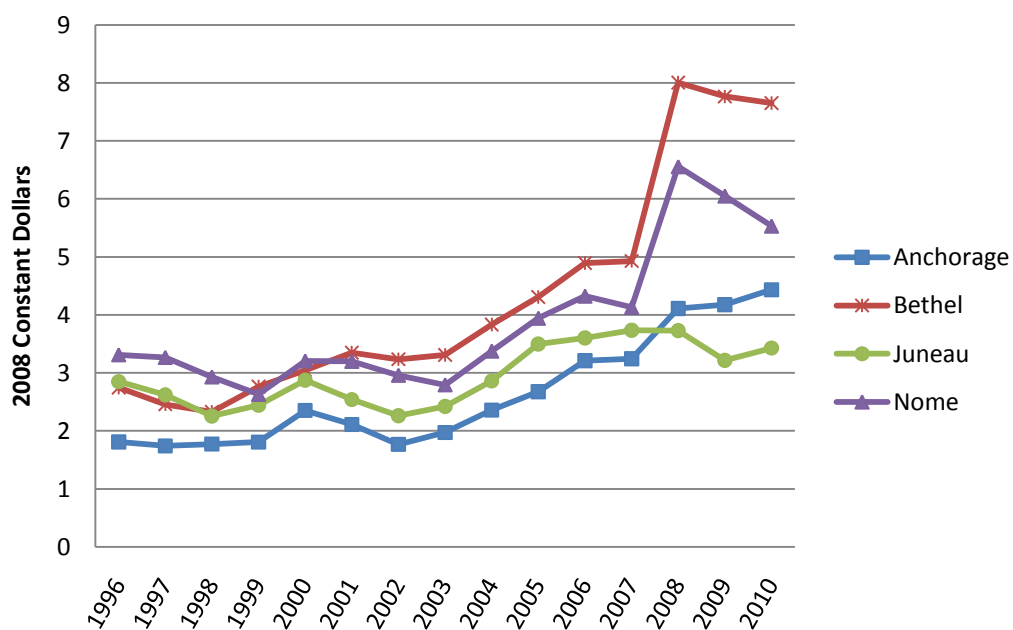
Source: Alaska Food Cost Survey, Cooperative Extension Services at the University of Alaska Fairbanks.

FIGURE 9.10 Price of a gallon of gasoline over time by community



Source: Alaska Food Cost Survey, Cooperative Extension Services at the University of Alaska Fairbanks.

FIGURE 9.11 Price of a gallon of propane over time by community



Source: Alaska Food Cost Survey, Cooperative Extension Services at the University of Alaska Fairbanks.

E. Regional Consumption

Some of the energy consumption in Alaska can be attributed to particular regions of the state:

Coal: Most consumption of coal occurs in the Railbelt, either near the Usibelli Coal Mine near Healy or at military bases and university campus either in or near Fairbanks.

Natural Gas: Most final consumption of natural gas by consumers occurs in or near Anchorage. Substantial amounts of natural gas are also used for oil and gas extraction in Cook Inlet and the North Slope.

Petroleum Products: Much of the petroleum products refined in North Pole and Nikiski are transported to other parts of the state by railroad, barge and/or road. A small amount of petroleum products are flown to remote rural villages. We found insufficient information to estimate regional consumption of petroleum products in Alaska.

Electricity: As discussed in detail in other chapters of this report, we estimated the regional generation and consumption of energy based on reports from individual utilities.

Housing Characteristics: Two of the primary determinants of residential consumption of energy are housing characteristics and heating degree days. Residents use a number of different fuels for space and water heating (Table 9.13). Variations in housing stock characteristics across the state partially explain regional variations in energy use. Since the 2010 Census data are not yet available, the information below is from the 2000 US Census is the same as in the previous report.

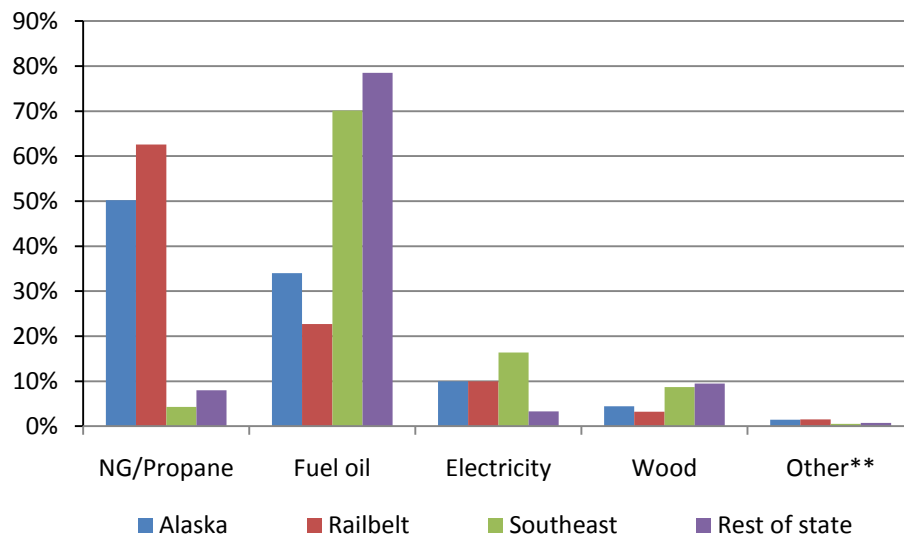
Notably, the Railbelt uses mostly natural gas for heating while housing units in other regions use heating oil or electricity (often generated from diesel fuel in rural Alaska). Larger homes require more energy for space heating. One indicator of the size of homes is the number of rooms. Table 9.13 summarizes the average number of rooms in houses in different regions of the state. On average, the homes with the most number of rooms are in the Railbelt. Because of climatic variations across the state, there are substantial differences in the amounts of heat required to heat homes. Table 9.14 summarizes the number of heating degree-days for selected places in Alaska as an indication of the variation in space heating requirements in different regions of Alaska.

Table 9.3. Percent of housing units within each region using each type of fuel

Region	NG/Propane	Fuel oil	Electricity	Wood	Other**
Alaska	50%	34%	10%	4%	1%
Railbelt	63%	23%	10%	3%	2%
Southeast	4%	70%	16%	9%	1%
Rest of state	8%	79%	3%	10%	1%

Source: American Community Survey, 5 year average from 2005-2009.

Figure 9.12. Percent of housing units within each region using each type of fuel



Source: American Community Survey, 5 year average from 2005-2009.

Table 9.4. Percent of housing units within each region with number of rooms

Region	None	One	Two	Three	Four	Five or More	Mean	Total
Railbelt	4%	13%	27%	37%	14%	4%	3	212,590
Southeast	5%	17%	27%	35%	12%	4%	2	34,358
Other	12%	16%	29%	30%	10%	3%	2	33,238
State	5%	14%	28%	36%	13%	4%	2	280,186

Source: American Community Survey, 5 year average from 2005-2009.

Table 9.5: Heating degree days monthly average in select places in Alaska

Region	Place	Heating Degree Days (base of 65 Degrees F)
Railbelt	Anchorage	10,513
	Fairbanks	13,902
	Homer	9,976
	Talkeetna	11,352
	Valdez	10,530
Southeast	Annette	6,950
	Yakutat	9,346
Other	Barrow	19,967
	Bethel	12,927
	Bettles	15,592
	Big Delta	13,427
	Cold Bay	9,710
	Gulkana	13,762
	King Salmon	11,247
	Kodiak	8,646
	Kotzebue	15,707
	McGrath	14,204
	Nome	14,030
	St. Paul Island	10,958

Source: Western Regional Climate Center (<http://www.wrcc.dri.edu/htmlfiles/ak/ak.hdd.html>)

F. Sources of Data

Extraction: Data for the amounts of natural gas, and natural gas liquid extraction and re-injection are from the Alaska Department of Natural Resources, Division of Oil and Gas, 2009 Annual Report. Coal extraction is from the US Energy Information Administration, Annual Coal Report. Previous estimates of crude oil and natural gas used during extraction were available from Division of Oil and Gas Annual Reports but are not available for more recent years.

Exports: Estimates of exports are available from the US Army Corps of Engineers, Waterborne Commerce of the US. Figures for crude oil and refined petroleum products are given in short tons. Conversion factors from metric tons to barrels of crude oil range from 6.95 to 7.33 barrels per metric ton. For this energy balance estimate we used 7 barrels per metric ton. Conversion factors for refined petroleum products vary by product type; we used a conversion factor of 8.03 barrels per Metric Ton, an average of the conversion factors for diesel, motor gasoline and jet fuel. For these conversion factors, we used the Environmental Science & Technology Centre, Environment Canada Spills Technology Databases, Oil Properties database, http://www.etc-cte.ec.gc.ca/databases/OilProperties/oil_A_e.html. LNG Exports were obtained from 2008 Conoco Phillips Fact Book.

Petroleum Refining and Natural Gas Processing: As mentioned above, the Department of Natural Resources, Division of Oil and Gas Annual Report no longer includes statistics that provide estimates of energy used in refining and processing. Consumption data from the Energy Information Agency provides information on industry consumption of Natural Gas and fuel used as lease and plant fuel and as pipeline fuel. EIA's estimate for pipeline fuel was used as estimate for 'processing use'.

Petroleum Product Sales: In the 2003 report, petroleum products sales by refiners were estimated using a combination of data from the US Energy Information Agency, Annual Petroleum Report and the Department of Natural Resources, Division of Oil and Gas, Annual Report for 2000 "Fuel Consumption History." The DNR report contained data from the Alaska Department of Revenue "Motor Fuel Activity Reports" that included detailed sales information about fuel sold in Alaska; however that information is no longer available. Only data from the US Energy Information Agency are still available but alone are insufficient to estimate refinery petroleum product sales by type of fuel.

Electricity: See the Appendix D of this report for sources details. Consumption by sector was obtained from the US Energy Information Agency, State Energy Data System.

Final Consumption: Final consumption of all commodities was obtained through the US Energy Information Agency, State Energy Data System.

Conversion Factors: The conversion factors for converting commodity units (such as short tons, barrels, and cubic feet) to Btus are from the U.S. Energy Information Administration,

which estimates conversion factors for each commodity for each state and year. The conversion factors used in our calculations appear along the bottom of Table 9.1 and also in Table 9.6 below.

Table 9.6: Conversion Factors Used to Convert Commodity Units to Btus

Commodity	Conversion Factor	Units
Coal	19.9880	Million Btu per short ton
Natural Gas	1.028	Thousand Btu per cubic foot
Petroleum	5.8	Million Btu per barrel
Crude Oil	5.8	Million Btu per barrel
Natural Gas Liquids	3.7040	Million Btu per barrel
Distillate Fuel	5.825	Million Btu per barrel
Jet Fuel	5.670	Million Btu per barrel
Motor Gasoline	5.230	Million Btu per barrel
Other Petroleum Products	6.0650	Million Btu per barrel
Naphtha	114,692	Btu per gallon
Heavy Atmospheric Gas Oil	139,822	Btu per gallon
Wood	20.0000	Million Btu per thousand cord
Electricity	3.4120	Btu per kWh

Source: Energy Information Agency, 2008

Appendix A

Glossary of Terms²

Alaska Energy Authority (AEA): A public corporation of the state with a separate and independent legal existence with the mission to construct, acquire, finance, and operate power projects and facilities that utilize Alaska’s natural resources to produce electricity and heat.
<http://www.akenergyauthority.org/>

Auxiliary Generator: A generator at the electric plant site that provides power for the operation of the electrical generating equipment itself, including related demands such as plant lighting, during periods when the electric plant is not operating and power is unavailable from the grid. A black start generator used to start main central station generators is considered to be an auxiliary generator.

Backup (Standby) Generator: A generator that is used only for test purposes, or in the event of an emergency, such as a shortage of power needed to meet customer load requirements.

Barrel (bbl): A unit of volume equal to 42 U.S. gallons.

Bituminous coal: A dense coal, usually black, sometimes dark brown, often with well-defined bands of bright and dull material, used primarily as fuel in steam-electric power generation, with substantial quantities also used for heat and power applications in manufacturing and to make coke. Bituminous coal is the most abundant coal in active U.S. mining regions. Its moisture content usually is less than 20%. The heat content of bituminous coal ranges from 21 to 30 million BTU per ton on a moist, mineral-matter-free basis. The heat content of bituminous coal consumed in the United States averages 24 million BTU per ton, on the as-received basis (i.e. containing both inherent moisture and mineral matter).

British Thermal Unit: The British thermal unit (BTU or Btu) is a traditional unit of energy equal to about 1.06 kilojoules. It is approximately the amount of energy needed to heat 1 pound (0.454 kg) of water 1 °F (0.556 °C). It is used in the power, steam generation, heating and air conditioning industries. In North America, the term “BTU” is used to describe the heat value (energy content) of fuels, and also to describe the power of heating and cooling systems. When used as a unit of power, BTU per hour (BTU/h) is the correct unit, though this is often abbreviated to just “BTU”.

Capital Cost: The cost of field development, plant construction, and the equipment required for industry operations.

² U.S. Energy Information Administration glossary posted at www.eia.doe.gov/ plus multiple sources for additional Alaska specific terms.

Climate Change: A term used to refer to all forms of climatic inconsistency, but especially to significant change from one prevailing climatic condition to another. In some cases, “climate change” has been used synonymously with the term “global warming”; scientists, however, tend to use the term in a wider sense inclusive of natural changes in climate, including climatic cooling.

Coal: A readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50% by weight and more than 70% by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time. It is estimated that Alaska holds about 15% of the world’s coal resources, amounting to 170 billion identified short tons. Major coal provinces include Northern Alaska, the Nenana area, Cook Inlet – Matanuska Valley, the Alaska Peninsula, and in the Gulf of Alaska and the Bering River. Alaska coals exhibit low metallic trace elements, good ash-fusion characteristics, and low nitrogen content making them favorable for meeting environmental constraints on combustion in power plants.

Cogeneration system: A system using a common energy source to produce both electricity and thermal energy for other uses, resulting in increased fuel efficiency.

Combined Cycle: An electric generating technology in which electricity is produced from otherwise lost waste heat exiting from one or more gas (combustion) turbines. The exiting heat is routed to a conventional boiler or to a heat recovery steam generator for utilization by a steam turbine in the production of electricity. This process increases the efficiency of the electric generating unit.

Combustion: Chemical oxidation accompanied by the generation of light and heat.

Commercial Sector: An energy-consuming sector that consists of service-providing facilities and equipment of businesses; Federal, State, and local governments; and other private and public organizations, such as religious, social, or fraternal groups. The commercial sector includes institutional living quarters. It also includes sewage treatment facilities. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a wide variety of other equipment. Note: This sector includes generators that produce electricity and/or useful thermal output primarily to support the activities of the above-mentioned commercial establishments.

Consumer (energy): Any individually metered dwelling, building, establishment, or location.

Diesel #1: Also known as DF1 or Jet A. Diesel #1 is commonly used as heating fuel throughout most of northern rural AK. Diesel #1 has a lower gel temperature than Diesel #2 which is sold for heating fuel in warmer climates. Diesel #1 is same fuel the refineries sell as Jet fuel (Jet A), and in many tank farms it is stored as Jet A until sold as DF1.

Diesel #2: Is commonly used throughout the US. In Alaska it is used for marine and highway diesel as well as heating fuel in warmer regions. Diesel #2 is preferred over #1 where it is warm enough as it has higher energy content.

Diesel Fuel: A fuel composed of distillates obtained in petroleum refining operation or blends of such distillates with residual oil used in motor vehicles. The boiling point and specific gravity are higher for diesel fuels than for gasoline.

Distillate Fuel Oil: A generic name for a refined petroleum product. It can refer to diesel, heating fuel or jet fuel.

Electricity: A form of energy characterized by the presence and motion of elementary charged particles generated by friction, induction, or chemical change.

Energy Balance: The difference between the total incoming and total outgoing energy. When the energy budget is balanced, the system neither gains nor loses energy.

Energy Information Agency (EIA): An independent agency within the U.S. Department of Energy that develops surveys, collects energy data, and analyzes and models energy issues. <http://www.eia.doe.gov/>

Exports: Shipments of goods from within the 50 States and the District of Columbia to U.S. possessions and territories or to foreign countries.

Fuel: Any material substance that can be consumed to supply heat, power, or mechanical energy. Included are petroleum, coal, and natural gas (the fossil fuels), and other consumable materials, such as uranium, biomass, and hydrogen.

Furnished without payment (power): The amount of electricity furnished by the electric utility without charge, such as a municipality under a franchise agreement or for public street and highway lighting. It does not included energy consumed by the utility.

Gallon: A volumetric measure equal to four quarts (231 cubic inches) used to measure fuel oil.

Gas: A non-solid, non-liquid combustible energy source that includes natural gas, coke-oven gas, blast-furnace gas, and refinery gas.

Grid: The layout of an electrical distribution system.

Gross Domestic Disposition: The total amount of energy available for sale in the domestic region, i.e. energy produced for sale in the domestic region in addition to energy imported for sale within the domestic region.

Gross Extraction: The total amount of fuel obtained or produced by a power production plant.

Gross Generation: The total amount of electric energy produced by generating units and measured at the generating terminal in kilowatt-hours (kWh) or megawatt hours (MWh).

Heating Degree Days (HDD): A measure of how cold a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees Fahrenheit. The measure is computed for each day by subtracting the average of the day's high and low temperatures from the base temperature (65 degrees), with negative values set equal to zero. Each day's heating degree days are summed to create a heating degree day measure for a specified reference period. Heating degree days are used in energy analysis as an indicator of space heating energy requirements or use.

Hydroelectric Power: The use of flowing water to produce electrical energy.

Imports: Receipts of goods into the 50 States and the District of Columbia from U.S. possessions and territories or from foreign countries.

Industrial Sector: An energy-consuming sector that consists of all facilities and equipment used for producing, processing, or assembling goods. The industrial sector encompasses the following types of activity: manufacturing, agriculture, timber harvest and wood processing, fishing and fish processing, hunting, mining, oil and gas extraction, and construction. Overall energy use in this sector is largely for process heat and cooling and powering machinery, with lesser amounts used for facility heating, air conditioning, and lighting. Fossil fuels are also used as raw material inputs to manufactured products. Note: This sector includes generators that produce electricity and/or useful thermal output primarily to support the above-mentioned industrial activities.

Injections: Natural gas injected into storage reservoirs.

Installed Capacity: The maximum theoretical production output of a plant, based either on nameplate capacity or actual (practically determined) capacity.

Internal Combustion: The process where fuel is burned, or combusted, inside a cylinder, such as a diesel engine, producing power directly as opposed to fuel burning externally, such as in a steam engine. The term internal combustion engine usually refers to an engine in which combustion is intermittent, such as the more familiar four-stroke and two-stroke piston engines. A second class of internal combustion engines uses continuous combustion: gas turbines, jet engines and most rocket engines.

Kilowatt-hour (kWh): A unit of energy equal to one kW applied for one hour; running a one kW hair dryer for one hour would dissipate one kWh of electrical energy as heat. Also, one kWh is equivalent to one thousand watt hours.

Kilowatt (kW): One thousand watts of electricity (See Watt).

Load (Electric): Amount of electricity required to meet customer demand at any given time.

MCF: One thousand cubic feet.

Megawatt (MW): One million watts of electricity (See Watt).

Mining: An energy-consuming subsector of the industrial sector that consists of all facilities and equipment used to extract energy and mineral resources.

Nameplate Capacity: The maximum rated output of an electric power production unit (i.e. generator, prime mover) under specific conditions designated by the manufacturer. Capacity is usually indicated on a nameplate physically attached to the generator.

Natural Gas: Gas in place at the time that a reservoir was converted to use as an underground storage reservoir in contrast to injected gas volumes.

Net Capacity: The maximum load that an electrical apparatus (i.e. generating unit or station) can carry, not including use by the electrical apparatus.

Net Domestic Disposition: The total amount of energy produced in the domestic region that is available for sale within the domestic region, i.e. not including energy use by producers or energy exported for sale outside of the domestic region.

Net Extraction: The total amount of fuel obtained or produced by a power production plant, not including electric energy use by the plants.

Net Generation: The amount of gross generation not including the electrical energy consumed at the generating station(s) for station service or auxiliaries. Note: Electricity required for pumping at pumped-storage plants is regarded as electricity for station service and is deducted from gross generation.

Oil: A mixture of hydrocarbons usually existing in the liquid state in natural underground pools or reservoirs. Gas is often found in association with oil (See Petroleum).

O&M: Operations and maintenance

Other: The “other” category is defined as representing electricity consumers not elsewhere classified. This category includes public street and highway lighting service, public authority service to public authorities, railroad and railway service, and interdepartmental services.

Peak: The amount of electricity required to meet customer demand at its highest. The summer peak period begins June 1st and ends September 30th, and the winter peak period begins December 1st and ends March 31st.

Petroleum: A broadly defined class of liquid hydrocarbon mixtures. Included are crude oil, lease condensate, unfinished oils, refined products obtained from the processing of crude oil, and natural gas plant liquids. Note: Volumes of finished petroleum products include non-hydrocarbon compounds, such as additives and detergents, after they have been blended into the products.

Petroleum Products: Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products

Plant: A term commonly used either as a synonym for an industrial establishment or a generating facility or to refer to a particular process within an establishment.

Power: The rate of producing, transferring, or using energy that is capable of doing work, most commonly associated with electricity. Power is measured in watts and often expressed in kilowatts (kW) or megawatts (MW).

Power Cost Equalization Program (PCE): Participating utilities receive state funding to reduce the charge to consumers in rural areas where prices can be three to five times higher than prices in urban areas.

Prime Mover: The engine, turbine, water wheel, or similar machine that drives an electric generator; or, for reporting purposes, a device that converts energy to electricity directly (e.g. photovoltaic solar and fuel cells).

<u>Prime Mover Code</u>	<u>Prime Mover Description (U.S. EIA)</u>
ST.....	Steam Turbine, including nuclear, geothermal and solar steam (does not include combined cycle)
GT.....	Combustion (Gas) Turbine (includes jet engine design)
IC.....	Internal Combustion Engine (diesel, piston)
CA.....	Combined Cycle Steam Part
CT.....	Combined Cycle Combustion Turbine Part
CS.....	Combined Cycle Single Shaft (combustion turbine and steam turbine share a single generator)
CC.....	Combined Cycle - Total Unit
HY.....	Hydraulic Turbine (includes turbines associated with delivery of water by pipeline)
PS.....	Hydraulic Turbine – Reversible (pumped storage)
BT.....	Turbines used in a binary cycle such as geothermal

PV.....	Photovoltaic
WT.....	Wind Turbine
CE.....	Compressed Air Energy Storage
FC.....	Fuel Cell
OT.....	Other
NA.....	Unknown at this time (use only for plants/generators in planning stage)

Pro Forma: A Latin term means “for the sake of form,” it describes a method of calculating financial results in order to emphasize either current or projected figures.

Purchased Capacity: The amount of energy and capacity available for purchase from outside the system.

Railbelt: The portion of Alaska that is near the Alaska Railroad, generally including Fairbanks, Anchorage, the communities between these two cities, and the Kenai Peninsula.

Refinery: An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and oxygenates.

Reinjected: The forcing of gas under pressure into an oil reservoir in an attempt to increase recovery.

Renewable Energy Fund (REF): Established by the Alaska State Legislature and administered by the Alaska Energy Authority to competitively award grants to qualified applicants for renewable energy projects.

Renewable Energy Resources: Energy resources that are naturally replenishing but flow-limited. They are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time. Renewable energy resources include biomass, hydro, geothermal, solar, wind, ocean thermal, wave action, and tidal action.

Residential Sector: An energy-consuming sector that consists of living quarters for private households. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a variety of other appliances. The residential sector excludes institutional living quarters.

Residual Fuel Oil: A general classification for the heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations. It is used in steam-powered vessels in government service and inshore power plants, and can be issued for the production of electric power, space heating, vessel bunkering, and various industrial purposes.

Revenue (Electricity): The total amount of money received by an entity from sales of its products and/or services; gains from the sales or exchanges of assets, interest, and dividends

earned on investments; and other increases in the owner's equity, except those arising from capital adjustments.

Short Ton: A unit of weight equal to 2,000 pounds.

Space Heating: The use of energy to generate heat for warmth in housing units using space-heating equipment. It does not include the use of energy to operate appliances (such as lights, televisions, and refrigerators) that give off heat as a byproduct.

Steam: Water in vapor form; used as the working fluid in steam turbines and some heating systems.

Transmission System (Electric): An interconnected group of electric transmission lines and associated equipment for moving or transferring electric energy in bulk between points of supply and points at which it is transformed for delivery over the distribution system lines to consumers, or is delivered to other electric systems.

Tonne (Ton): A unit of mass equal to 1,000 kilograms or 2,204.6 pounds, also known as a metric ton.

Total Disposition: The total amount of sold or transferred energy.

Turbine: A machine for generating rotary mechanical power from the energy of a moving force (such as water, hot gas, wind, or steam). Turbines convert the kinetic energy to mechanical energy through the principles of impulse and reaction, or a mixture of the two.

U.S. Department of Energy (DOE): Oversees programs, such as Wind Powering America, with the mission to advance national, economic, and energy security; promote innovation; and ensure environmental responsibility. <http://www.energy.gov/>

Watt (Electric): The electrical unit of power. The rate of energy transfer equivalent to one ampere of electric current flowing under a pressure of one volt at unity power factor.

Watt (Thermal): A unit of power in the metric system, expressed in terms of energy per second, equal to the work done at a rate of one joule per second.

Watt hour (Wh): The electrical energy unit of measure equal to one watt of power supplied to, or taken from, an electric circuit steadily for one hour.

Appendix B

Utility List

Acronym	Utility Name	Plant Name	Community	Regulatory Status	Certificate	Ownership	Census Region	Native Corporation Region	Region	PCE
AKIANCE	Akiachak Native Community		Akiachak	NR	Active		Bethel (CA)	Calista	SW	Yes
AKIA	Akiak City Council		Akiak	NR	Active	M	Bethel (CA)	Calista	SW	No
	Alaska Electric Light & Power Co	Annex Creek	Juneau	RE	Active	U	Juneau	Sealaska	SE	Yes
	Alaska Electric Light & Power Co	Auke Bay	Juneau	RE	Active	U	Juneau	Sealaska	SE	Yes
	Alaska Electric Light & Power Co	Gold Creek	Juneau	RE	Active	U	Juneau	Sealaska	SE	Yes
	Alaska Electric Light & Power Co	Lemon Creek	Juneau	RE	Active	U	Juneau	Sealaska	SE	Yes
	Alaska Electric Light & Power Co	Salmon Creek 1	Juneau	RE	Active	U	Juneau	Sealaska	SE	Yes
	Alaska Electric Light & Power Co	Snettisham	Juneau	RE	Active	U	Juneau	Sealaska	SE	Yes
ALASPCA	Alaska Power & Telephone Company		Allakaket	RE	Active	C	Yukon-Koyukuk (CA)	Doyon	YU	No
ALASPCA	Alaska Power & Telephone Company		Bettles	RE	Active	C	Yukon-Koyukuk (CA)	Doyon	YU	Yes
ALASPCA	Alaska Power & Telephone Company		Chistochina	RE	Active	C	Valdez-Cordova (CA)	Ahtna	YU	Yes
ALASPCA	Alaska Power & Telephone Company		Coffman Cove	RE	Active	C	Prince of Wales-Hyder (CA)	Sealaska	SE	Yes
ALASPCA	Alaska Power & Telephone Company		Craig	RE	Active	C	Prince of Wales-Hyder (CA)	Sealaska	SE	Yes
ALASPCA	Alaska Power & Telephone Company		Dot Lake	RE	Active	C	Southeast Fairbanks (CA)	Doyon	YU	Yes
ALASPCA	Alaska Power & Telephone Company		Eagle	RE	Active	C	Southeast Fairbanks (CA)	Doyon	YU	Yes
ALASPCA	Alaska Power & Telephone Company		Haines	RE	Active	C	Haines	Sealaska	SE	Yes
ALASPCA	Alaska Power & Telephone Company		Healy Lake	RE	Active	C	Southeast Fairbanks (CA)	Doyon	YU	Yes
ALASPCA	Alaska Power & Telephone Company		Hollis	RE	Active	C	Prince of Wales-Hyder (CA)	Sealaska	SE	No
ALASPCA	Alaska Power & Telephone Company		Hydaburg	RE	Active	C	Prince of Wales-Hyder (CA)	Sealaska	SE	Yes
ALASPCA	Alaska Power & Telephone Company		Klawock	RE	Active	C	Prince of Wales-Hyder (CA)	Sealaska	SE	Yes
ALASPCA	Alaska Power & Telephone Company		Mentasta Lake	RE	Active	C	Valdez-Cordova (CA)	Ahtna	YU	No
ALASPCA	Alaska Power & Telephone Company		Naukatli Bay	RE	Active	C	Prince of Wales-Hyder	Sealaska	SE	Yes

Acronym	Utility Name	Plant Name	Community	Regulatory Status	Certificate	Ownership	Census Region	Native Corporation Region	Region	PCE
	Company						(CA)			
ALASPCA	Alaska Power & Telephone Company		Northway	RE	Active	C	Southeast Fairbanks (CA)	Doyon	YU	No
ALASPCA	Alaska Power & Telephone Company		Skagway	RE	Active	C	Skagway	Sealaska	SE	Yes
ALASPCA	Alaska Power & Telephone Company		Slana		Active	C	Valdez-Cordova (CA)	Ahtna	YU	Yes
ALASPCA	Alaska Power & Telephone Company		Tetlin	RE	Active	C	Southeast Fairbanks (CA)	Doyon	YU	No
ALASPCA	Alaska Power & Telephone Company		Thorne Bay	RE	Active	C	Prince of Wales-Hyder (CA)	Sealaska	SE	No
ALASPCA	Alaska Power & Telephone Company		Tok	RE	Active	C	Southeast Fairbanks (CA)	Doyon	YU	No
ALASPCA	Alaska Power & Telephone Company		Whale Pass	RE	Active	C	Prince of Wales-Hyder (CA)	Sealaska	SE	Yes
ALASVEC	Alaska Village Electric Coop		Alakanuk	RE	Active	C	Wade Hampton (CA)	Calista	YU	No
ALASVEC	Alaska Village Electric Coop		Ambler	NR	Active	C	Northwest Arctic	NANA	AN	No
ALASVEC	Alaska Village Electric Coop		Anvik	NR	Active	C	Yukon-Koyukuk (CA)	Doyon	YU	Yes
ALASVEC	Alaska Village Electric Coop		Brevig Mission	NR	Active	C	Nome (CA)	Bering Straits	AN	Yes
ALASVEC	Alaska Village Electric Coop		Chevak	RE	Active	C	Wade Hampton (CA)	Calista	YU	Yes
ALASVEC	Alaska Village Electric Coop		Eek	NR	Active	C	Bethel (CA)	Calista	SW	Yes
ALASVEC	Alaska Village Electric Coop		Elim	RE	Active	C	Nome (CA)	Bering Straits	AN	Yes
ALASVEC	Alaska Village Electric Coop		Emmonak	RE	Active	C	Wade Hampton (CA)	Calista	YU	Yes
ALASVEC	Alaska Village Electric Coop		Gambell	RE	Active	C	Nome (CA)	Bering Straits	AN	Yes
ALASVEC	Alaska Village Electric Coop		Goodnews Bay	NR	Active	C	Bethel (CA)	Calista	SW	Yes
ALASVEC	Alaska Village Electric Coop		Grayling	NR	Active	C	Yukon-Koyukuk (CA)	Doyon	YU	Yes
ALASVEC	Alaska Village Electric Coop		Holy Cross	NR	Active	C	Yukon-Koyukuk (CA)	Doyon	YU	Yes
ALASVEC	Alaska Village Electric Coop		Hooper Bay	RE	Active	C	Wade Hampton (CA)	Calista	YU	Yes
ALASVEC	Alaska Village Electric Coop		Huslia	NR	Active	C	Yukon-Koyukuk (CA)	Doyon	YU	Yes
ALASVEC	Alaska Village Electric Coop		Kalskag	RE	Active	C	Bethel (CA)	Calista	SW	No
ALASVEC	Alaska Village Electric Coop		Kaltag	NR	Active	C	Yukon-Koyukuk (CA)	Doyon	YU	No

Acronym	Utility Name	Plant Name	Community	Regulatory Status	Certificate	Ownership	Census Region	Native Corporation Region	Region	PCE
ALASVEC	Alaska Village Electric Coop		Kasigluk	RE	Active	C	Bethel (CA)	Calista	SW	Yes
ALASVEC	Alaska Village Electric Coop		Kiana	RE	Active	C	Northwest Arctic	NANA	AN	No
ALASVEC	Alaska Village Electric Coop		Kivalina	RE	Active	C	Northwest Arctic	NANA	AN	No
ALASVEC	Alaska Village Electric Coop		Koyuk	RE	Active	C	Nome (CA)	Bering Straits	AN	Yes
ALASVEC	Alaska Village Electric Coop		Lower Kalskag	NR	Active	C	Bethel (CA)	Calista	SW	No
ALASVEC	Alaska Village Electric Coop		Marshall	NR	Active	C	Wade Hampton (CA)	Calista	YU	Yes
ALASVEC	Alaska Village Electric Coop		Mekoryuk	NR	Active	C	Bethel (CA)	Calista	SW	Yes
ALASVEC	Alaska Village Electric Coop		Minto	NR	Active	C	Yukon-Koyukuk (CA)	Doyon	YU	No
ALASVEC	Alaska Village Electric Coop		Mountain Village	RE	Active	C	Wade Hampton (CA)	Calista	YU	No
ALASVEC	Alaska Village Electric Coop		New Stuyahok	NR	Active	C	Dillingham (CA)	Bristol Bay	SW	No
ALASVEC	Alaska Village Electric Coop		Nightmute	NR	Active	C	Bethel (CA)	Calista	SW	Yes
ALASVEC	Alaska Village Electric Coop		Noatak	RE	Active	C	Northwest Arctic	NANA	AN	Yes
ALASVEC	Alaska Village Electric Coop		Noorvik	RE	Active	C	Northwest Arctic	NANA	AN	Yes
ALASVEC	Alaska Village Electric Coop		Nulato	NR	Active	C	Yukon-Koyukuk (CA)	Doyon	YU	No
ALASVEC	Alaska Village Electric Coop		Nunapitchuk	NR	Active	C	Bethel (CA)	Calista	SW	Yes
ALASVEC	Alaska Village Electric Coop		Old Harbor	NR	Active	C	Kodiak Island	Koniag	SC	No
ALASVEC	Alaska Village Electric Coop		Pilot Station	RE	Active	C	Wade Hampton (CA)	Calista	YU	Yes
ALASVEC	Alaska Village Electric Coop		Pitkas Point		Active	C	Wade Hampton (CA)	Calista	YU	Yes
ALASVEC	Alaska Village Electric Coop		Quinhagak	RE	Active	C	Bethel (CA)	Calista	SW	Yes
ALASVEC	Alaska Village Electric Coop		Russian Mission	NR	Active	C	Wade Hampton (CA)	Calista	YU	No
ALASVEC	Alaska Village Electric Coop		Saint Marys	RE	Active	C	Wade Hampton (CA)	Calista	YU	Yes
ALASVEC	Alaska Village Electric Coop		Saint Michael	RE	Active	C	Nome (CA)	Bering Straits	AN	Yes
ALASVEC	Alaska Village Electric Coop		Savoonga	RE	Active	C	Nome (CA)	Bering Straits	AN	Yes
ALASVEC	Alaska Village Electric Coop		Scammon Bay	RE	Active	C	Wade Hampton (CA)	Calista	YU	Yes
ALASVEC	Alaska Village Electric Coop		Selawik	RE	Active	C	Northwest Arctic	NANA	AN	Yes
ALASVEC	Alaska Village Electric Coop		Shageluk	NR	Active	C	Yukon-Koyukuk (CA)	Doyon	YU	Yes

Acronym	Utility Name	Plant Name	Community	Regulatory Status	Certificate	Ownership	Census Region	Native Corporation Region	Region	PCE
ALASVEC	Alaska Village Electric Coop		Shaktoolik	NR	Active	C	Nome (CA)	Bering Straits	AN	Yes
ALASVEC	Alaska Village Electric Coop		Shishmaref	RE	Active	C	Nome (CA)	Bering Straits	AN	Yes
ALASVEC	Alaska Village Electric Coop		Shungnak	RE	Active	C	Northwest Arctic	NANA	AN	Yes
ALASVEC	Alaska Village Electric Coop		Stebbins	RE	Active	C	Nome (CA)	Bering Straits	AN	Yes
ALASVEC	Alaska Village Electric Coop		Teller	RE	Active	C	Nome (CA)	Bering Straits	AN	Yes
ALASVEC	Alaska Village Electric Coop		Togiak	RE	Active	C	Dillingham (CA)	Bristol Bay	SW	Yes
ALASVEC	Alaska Village Electric Coop		Toksook Bay	RE	Active	C	Bethel (CA)	Calista	SW	Yes
ALASVEC	Alaska Village Electric Coop		Tununak	NR	Active	C	Bethel (CA)	Calista	SW	Yes
ALASVEC	Alaska Village Electric Coop		Wales	NR	Active	C	Nome (CA)	Bering Straits	AN	Yes
ALUTPC	Alutiq Power Company		Karluk	NR	Active		Kodiak Island	Koniag	SC	Yes
	Anchorage Municipal Light & Power	Anchorage 1	Anchorage	RE	Active	U	Anchorage	Cook Inlet	SC	Yes
	Anchorage Municipal Light & Power	Eklutna Hydro Project	Anchorage	RE	Active	U	Anchorage	Cook Inlet	SC	Yes
	Anchorage Municipal Light & Power	George M Sullivan Generation Plant 2	Anchorage	RE	Active	U	Anchorage	Cook Inlet	SC	Yes
ANIALPC	Aniak Light & Power		Aniak	RE	Active	U	Bethel (CA)	Calista	SW	Yes
ATMATU	Atmautluak Tribal Utilities		Atmautluak	NR	Active		Bethel (CA)	Calista	SW	Yes
	Aurora Energy LLC	Aurora Energy LLC Chena	Fairbanks	RE	Active	U	Fairbanks North Star	Doyon	YU	Yes
	Barrow Utils & Elect Coop Inc		Barrow	RE	Active	C	North Slope	Arctic Slope	AN	Yes
BEAVJU	Beaver Joint Utilities		Beaver	NR	Active		Yukon-Koyukuk (CA)	Doyon	YU	Yes
BETHUC	Bethel Utilities Corporation		Bethel	RE	Active	U	Bethel (CA)	Calista	SW	Yes
CENTEI	Central Electric Inc.		Central	RE	Active		Yukon-Koyukuk (CA)	Doyon	YU	Yes
CHALVC	Chalkyitsik Village Council		Chalkyitsik	NR	Active		Yukon-Koyukuk (CA)	Doyon	YU	Yes
CHENVC	Chenega Ira Council		Chenega Bay	NR	Active		Valdez-Cordova (CA)	Chugach	SC	Yes
CHIGLEU	Chignik Lagoon Power Utility		Chignik Lagoon	NR	Active		Lake and Peninsula	Bristol Bay	SW	Yes
CHIG	Chignik Lake Electric Utility		Chignik Lake	RE	Active	M	Lake and Peninsula	Bristol Bay	SW	Yes
CHITE	Chitina Electric Inc		Chitina	NR	Active	U	Valdez-Cordova (CA)	Ahtna	SC	Yes

Acronym	Utility Name	Plant Name	Community	Regulatory Status	Certificate	Ownership	Census Region	Native Corporation Region	Region	PCE
	Chugach Electric Assn Inc	Cooper Lake	Anchorage	RE	Active	C	Anchorage	Cook Inlet	SC	Yes
	Chugach Electric Assn Inc	International	Anchorage	RE	Active	C	Anchorage	Cook Inlet	SC	Yes
	Chugach Electric Assn Inc	Bernice Lake	Nikiski	RE	Active	C	Kenai Peninsula	Cook Inlet	SC	Yes
	Chugach Electric Assn Inc	Beluga	Railbelt		Active	C				Yes
CIRCU	Circle Electric Utility		Circle	NR	Active		Yukon-Koyukuk (CA)	Doyon	YU	Yes
AKUT	City Of Akutan		Akutan	NR	Active	M	Aleutians East	Aleut	SW	No
ANDRE	City Of Atka		Atka	NR	Active	M	Aleutians West (CA)	Aleut	SW	Yes
BUCK	City Of Buckland C/O		Buckland	NR	Active	M	Northwest Arctic	NANA	AN	Yes
CHIGLPU	City Of Chignik		Chignik	NR	Active	U	Lake and Peninsula	Bristol Bay	SW	Yes
EKWO	City Of Ekwok		Ekwok	NR	Active	M	Dillingham (CA)	Bristol Bay	SW	Yes
GALE	City Of Galena		Galena	RE	Active	M	Yukon-Koyukuk (CA)	Doyon	YU	Yes
KINGC	City Of King Cove		King Cove	RE	Active	M	Aleutians East	Aleut	SW	No
KOYU	City Of Koyukuk		Koyukuk	NR	Active	M	Yukon-Koyukuk (CA)	Doyon	YU	Yes
NIKO	City Of Nikolai		Nikolai	NR	Active	M	Yukon-Koyukuk (CA)	Doyon	SW	Yes
OUZI	City Of Ouzinkie		Ouzinkie	NR	Active	M	Kodiak Island	Koniag	SC	No
	City Of Petersburg		Petersburg	RE	Active	M	Petersburg (CA)	Sealaska	SE	No
PLAT	City Of Platinum		Platinum	NR	Active	M	Bethel (CA)	Calista	SW	Yes
RUBY	City Of Ruby		Ruby	NR	Active	M	Yukon-Koyukuk (CA)	Doyon	YU	No
TENAS	City Of Tenakee Springs		Tenakee Springs	NR	Active	M	Hoonah-Angoon (CA)	Sealaska Bering Straits	SE	No
WHITMU	City Of White Mountain		White Mountain	NR	Active	M	Nome (CA)		AN	Yes
	City Of Wrangell		Wrangell	RE	Active	M	Wrangell	Sealaska	SE	Yes
CORDEC	Cordova Electric	Orca	Cordova	RE	Active	C	Valdez-Cordova (CA)	Chugach	SC	Yes
CORDEC	Cordova Electric	Power Creek	Cordova	RE	Active	C	Valdez-Cordova (CA)	Chugach	SC	Yes
	Copper Valley Elec Assn Inc	Glennallen	Glennallen	RE	Active	C	Valdez-Cordova (CA)	Ahtna	SC	Yes
	Copper Valley Elec Assn Inc	Solomon Gulch	Valdez	RE	Active	C	Valdez-Cordova (CA)	Chugach	SC	Yes
	Copper Valley Elec Assn Inc	Valdez	Valdez	RE	Active	C	Valdez-Cordova (CA)	Chugach	SC	Yes

Acronym	Utility Name	Plant Name	Community	Regulatory Status	Certificate	Ownership	Census Region	Native Corporation Region	Region	PCE
	Copper Valley Elec Assn Inc	Valdez Cogen	Valdez	RE	Active	C	Valdez-Cordova (CA)	Chugach	SC	Yes
DIOMJU	Diomed Joint Utilities		Diomed	NR	Active		Nome (CA)	Bering Straits	AN	Yes
EGEGLP	Egegik Light & Power Co		Egegik	RE	Inactive		Lake and Peninsula	Bristol Bay	SW	Yes
ELFICEU	Elfin Cove Utility Commission		Elfin Cove	NR	Active		Hoonah-Angoon (CA)	Sealaska	SE	Yes
GK	G & K Inc.		Cold Bay	RE	Active		Aleutians East	Aleut	SW	Yes
	Golden Valley Elec Assn Inc	Delta Power	Delta Junction	RE	Active	C	Southeast Fairbanks (CA)	Doyon	YU	Yes
	Golden Valley Elec Assn Inc	Fairbanks	Fairbanks	RE	Active	C	Fairbanks North Star	Doyon	YU	Yes
	Golden Valley Elec Assn Inc	Healy	Healy*	RE	Active	C	Denali	Doyon	YU	Yes
	Golden Valley Elec Assn Inc	North Pole	North Pole	RE	Active	C	Fairbanks North Star	Doyon	YU	No
GOLOPU	Golovin Power Utilities		Golovin	NR	Active	M	Nome (CA)	Bering Straits	AN	Yes
GUSTE	Gustavus Electric Co		Gustavus	RE	Active		Hoonah-Angoon (CA)	Sealaska	SE	Yes
	Gwitchyaa Zhee Co		Fort Yukon	RE	Active	U	Yukon-Koyukuk (CA)	Doyon	YU	Yes
	Homer Electric Assn Inc	Nikiski Co-Generation	Nikiski	RE	Active	C	Kenai Peninsula	Cook Inlet	SC	Yes
	Homer Electric Assn Inc	Bradley Lake	Railbelt		Active	C				Yes
	Homer Electric Assn Inc	Seldovia	Seldovia	RE	Active	C	Kenai Peninsula	Cook Inlet	SC	Yes
HUGHPL	Hughes Power & Light		Hughes	NR	Active		Yukon-Koyukuk (CA)	Doyon	YU	No
IGIUEC	Igiugig Electric Company		Igiugig	NR	Active	U	Lake and Peninsula	Bristol Bay	SW	Yes
ILIANNE	Iliamna Newhalen Nondalton		Nondalton	NR	Active	C	Lake and Peninsula	Bristol Bay	SW	Yes
	I-N-N Electric Coop, Inc		Newhalen	NR	Active	C	Lake and Peninsula	Bristol Bay	SW	No
INSIPEC	Inside Passage Electric		Angoon	RE	Active	C	Hoonah-Angoon (CA)	Sealaska	SE	Yes
INSIPEC	Inside Passage Electric		Chilkat		Active	C	Haines		SE	Yes
INSIPEC	Inside Passage Electric		Hoonah	RE	Active	C	Hoonah-Angoon (CA)	Sealaska	SE	Yes
INSIPEC	Inside Passage Electric		Kake	RE	Active	C	Petersburg (CA)	Sealaska	SE	Yes
INSIPEC	Inside Passage Electric		Klukwan	NR	Active	C	Hoonah-Angoon (CA)	Sealaska	SE	Yes
IPNAEC	Ipitchiaq Electric Company		Deering	NR	Active	U	Northwest Arctic	NANA	AN	Yes
	Ketchikan Public Utilities	Beaver Falls	Ketchikan	RE	Active	M	Ketchikan Gateway	Sealaska	SE	Yes

Acronym	Utility Name	Plant Name	Community	Regulatory Status	Certificate	Ownership	Census Region	Native Corporation Region	Region	PCE
	Ketchikan Public Utilities	Ketchikan	Ketchikan	RE	Active	M	Ketchikan Gateway	Sealaska	SE	Yes
	Ketchikan Public Utilities	S W Bailey	Ketchikan	RE	Active	M	Ketchikan Gateway	Sealaska	SE	Yes
	Ketchikan Public Utilities	Silvis	Ketchikan	RE	Active	M	Ketchikan Gateway	Sealaska	SE	Yes
	Ketchikan Public Utilities	Swan Lake	Ketchikan	RE	Active	M	Ketchikan Gateway	Sealaska	SE	Yes
KIPNLP	Kipnuk Light Plant		Kipnuk	RE	Active		Bethel (CA)	Calista	SW	No
KOBUVEC	Kobuk Valley Electric Company		Kobuk	NR	Active		Northwest Arctic	NANA	AN	Yes
	Kodiak Electric Assn Inc	Nymans Plant	Kodiak	NR	Active	C	Kodiak Island	Koniag	SC	Yes
	Kodiak Electric Assn Inc	Port Lions	Kodiak	NR	Active	C	Kodiak Island	Koniag	SC	Yes
	Kodiak Electric Assn Inc	Terror Lake	Kodiak	NR	Active	C	Kodiak Island	Koniag	SC	Yes
	Kodiak Electric Assn Inc	Kodiak	Kodiak*	NR	Active	C	Kodiak Island	Koniag	SC	Yes
KOKHVC	Kokhanok Village Council		Kokhanok	NR	Active	U	Lake and Peninsula	Bristol Bay	SW	Yes
KOTLES	Kotlik Joint Utility		Kotlik	RE	Active	U	Wade Hampton (CA)	Calista	YU	Yes
KOTZEA	Kotzebue Electric Association		Kotzebue	RE	Active	C	Northwest Arctic	NANA	AN	No
KWET	Kwethluk Incorporated		Kwethluk	NR	Active		Bethel (CA)	Calista	SW	Yes
KWIGPC	Kwigillingok Power Company		Kwigillingok	NR	Active	U	Bethel (CA)	Calista	SW	Yes
LARSBUC	Larsen Bay Utility Company		Larsen Bay	NR	Active	U	Kodiak Island	Koniag	SC	No
LEVEEC	Levelock Electrical Coop		Levelock	NR	Active		Lake and Peninsula	Bristol Bay	SW	No
LIMEVTC	Lime Village Electric Utility		Lime Village	RE	Active		Bethel (CA)	Calista	SW	No
MANLU	Manley Utilities		Manley Hot Springs	RE			Yukon-Koyukuk (CA)	Doyon	YU	No
MANOPC	Manokotak Power Company		Manokotak	NR	Active	U	Dillingham (CA)	Bristol Bay	SW	Yes
MCGRLP	Mcgrath Light & Power		McGrath	RE	Active	U	Yukon-Koyukuk (CA)	Doyon	SW	Yes
	Metlakatla Power & Light	Centennial	Metlakatla	RE	Active	U	Prince of Wales-Hyder (CA)	Sealaska	SE	Yes
	Metlakatla Power & Light	Chester Lake	Metlakatla	RE	Active	U	Prince of Wales-Hyder (CA)	Sealaska	SE	Yes
	Metlakatla Power & Light	Purple Lake	Metlakatla	RE	Active	U	Prince of Wales-Hyder (CA)	Sealaska	SE	Yes
MIDDKEC	Middle Kuskokwim Electric		Chuathbaluk	RE	Active	C	Bethel (CA)	Calista	SW	Yes
MIDDKEC	Middle Kuskokwim Electric		Crooked Creek	RE	Active	C	Bethel (CA)	Calista	SW	Yes

Acronym	Utility Name	Plant Name	Community	Regulatory Status	Certificate	Ownership	Census Region	Native Corporation Region	Region	PCE
MIDDKEC	Middle Kuskokwim Electric		Red Devil	RE	Active	C	Bethel (CA)	Calista	SW	No
MIDDKEC	Middle Kuskokwim Electric		Sleetmute	RE	Active	C	Bethel (CA)	Calista	SW	Yes
MIDDKEC	Middle Kuskokwim Electric		Stony River	RE	Active	C	Bethel (CA)	Calista	SW	Yes
NAKNEA	Naknek Electric		Naknek	RE	Active	C	Bristol Bay	Bristol Bay	SW	No
NAPAC	Napakiak Incinraq		Napakiak	RE	Active		Bethel (CA)	Calista	SW	Yes
NAPAEU	Napaskiak Electric Utility		Napaskiak	NR	Active		Bethel (CA)	Calista	SW	Yes
NATELP	Naterkaq Light Plant		Chefomak	NR	Active		Bethel (CA)	Calista	SW	Yes
NELSLEC	Nelson Lagoon Electrical Coop		Nelson Lagoon	NR	Active	C	Aleutians East	Aleut	SW	No
NEWKVC	New Koliganek Village Council		Koliganek	NR	Active	M	Dillingham (CA)	Bristol Bay	SW	Yes
	Nome Joint Utility Systems		Snake River		Active	M				Yes
NORTSB	North Slope Borough		Anaktuvuk Pass	RE	Active	M	North Slope	Arctic Slope	AN	No
NORTSB	North Slope Borough		Atkasuk	RE	Active	M	North Slope	Arctic Slope	AN	Yes
NORTSB	North Slope Borough		Kaktovik	RE	Active	M	North Slope	Arctic Slope	AN	Yes
NORTSB	North Slope Borough		Nuiqsut	RE	Active	U	North Slope	Arctic Slope	AN	No
NORTSB	North Slope Borough		Point Hope	RE	Active	U	North Slope	Arctic Slope	AN	Yes
NORTSB	North Slope Borough		Point Lay	RE	Active	U	North Slope	Arctic Slope	AN	Yes
NORTSB	North Slope Borough		Wainwright	RE	Active	M	North Slope	Arctic Slope	AN	Yes
NUNAIEC	Nunam Iqua Electric Company		Nunam Iqua				Wade Hampton (CA)	Calista	YU	No
NUSHEC	Nushagak Electric And		Dillingham	RE	Active	U	Dillingham (CA)	Bristol Bay	SW	Yes
PEDRBV	Pedro Bay Village Council		Pedro Bay	NR	Active	U	Lake and Peninsula	Bristol Bay	SW	No
	Pelican Utility		Pelican	RE	Active	U	Hoonah-Angoon (CA)	Sealaska	SE	No
PILOPEU	Pilot Point Electric Utility		Pilot Point	NR	Active		Lake and Peninsula	Bristol Bay	SW	Yes
PUVUPC	Puvumaq Power Company		Kongiganak	NR	Active		Bethel (CA)	Calista	SW	Yes
	Sitka, City & Borough Of	Blue Lake	Sitka	RE	Active	U	Sitka	Sealaska	SE	Yes
	Sitka, City & Borough Of	Green Lake	Sitka	RE	Active	U	Sitka	Sealaska	SE	Yes
	Sitka, City & Borough Of	Jarvis Street	Sitka	RE	Active	U	Sitka	Sealaska	SE	Yes
STPMEU	St. Paul Municipal Electric		Saint Paul	NR	Active		Aleutians West (CA)	Aleut	SW	Yes

Acronym	Utility Name	Plant Name	Community	Regulatory Status	Certificate	Ownership	Census Region	Native Corporation Region	Region	PCE
STEVVIC	Stevens Village Ira Council		Stevens Village	NR	Active		Yukon-Koyukuk (CA)	Doyon	YU	Yes
TAKOC	Takotna Community Assoc Inc		Takotna	NR	Active		Yukon-Koyukuk (CA)	Doyon	SW	Yes
TANAEC	Tanalian Electric Cooperative		Port Alsworth	NR	Active	C	Lake and Peninsula	Cook Inlet	SW	Yes
TANAPC	Tanana Power Company Inc		Tanana	RE	Active		Yukon-Koyukuk (CA)	Doyon	YU	Yes
TATIVIC	Tatitlek Village Ira Council		Tatitlek	NR	Active		Valdez-Cordova (CA)	Chugach	SC	Yes
TDXA	TDX Adak Generating LLC		Adak		Active		Aleutians West (CA)	Aleut	SW	No
TDXC	TDX Corporation		Sand Point	RE	Active		Aleutians East	Aleut	SW	Yes
TULUTPU	Tuluksak Traditional		Tuluksak	NR	Active		Bethel (CA)	Calista	SW	Yes
TUNTCSA	Tuntutuliak Community		Tuntutuliak	NR	Active		Bethel (CA)	Calista	SW	Yes
TWINHVC	Twin Hills Village Council		Twin Hills	NR	Active		Dillingham (CA)	Bristol Bay	SW	Yes
UMNAP	Umnak Power Company		Nikolski	NR	Active		Aleutians West (CA)	Aleut	SW	Yes
	Unalakleet Valley Electric		Unalakleet	RE	Active	U	Nome (CA)	Bering Straits	AN	Yes
	Unalaska, City Of	Dutch Harbor	Dutch Harbor		Active	M	Aleutians West (CA)	Aleut	SW	Yes
	Unalaska, City Of	Unalaska Power Module	Dutch Harbor		Active	M	Aleutians West (CA)	Aleut	SW	Yes
UNGUPC	Ungusraq Power Company		Newtok	NR	Active		Bethel (CA)	Calista	SW	Yes
YAKUP	Yakutat Power Inc		Yakutat	RE	Active	U	Yakutat	Sealaska	SE	Yes

Sources: Regulatory Commission of Alaska, U.S. Department of Energy - Energy Information Administration, Alaska Energy Authority and ISER.

Regulatory Status: RE=Regulated, NR=Not Regulated

Ownership type: C=Cooperative, M=Municipal, U=Utility owned

Region: AN=Arctic Northwest, SE=South East, SC=South Central, SW=Southwest, YU=Yukon

Appendix C

Maps of Energy Regions

Figure1. Alaska Energy Statistics 2003 Regions

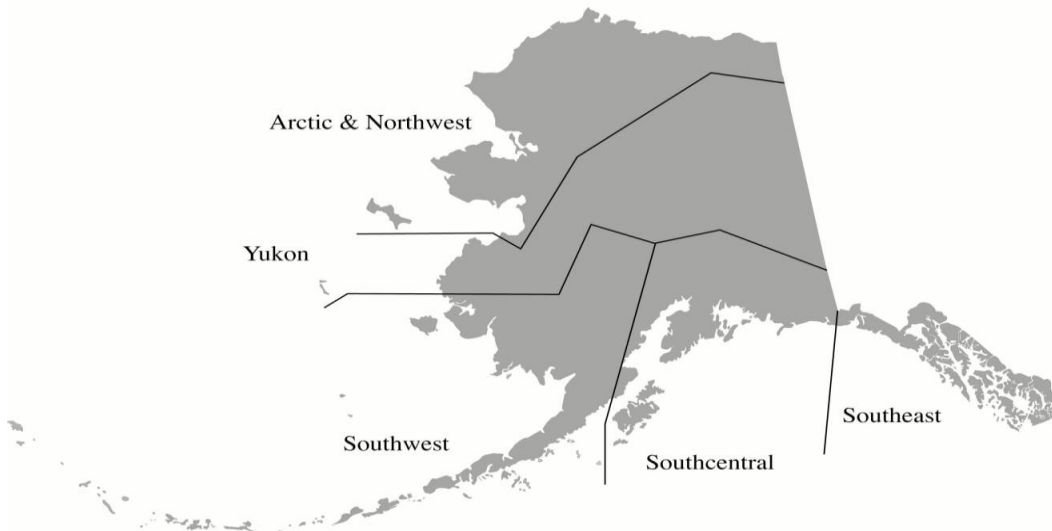
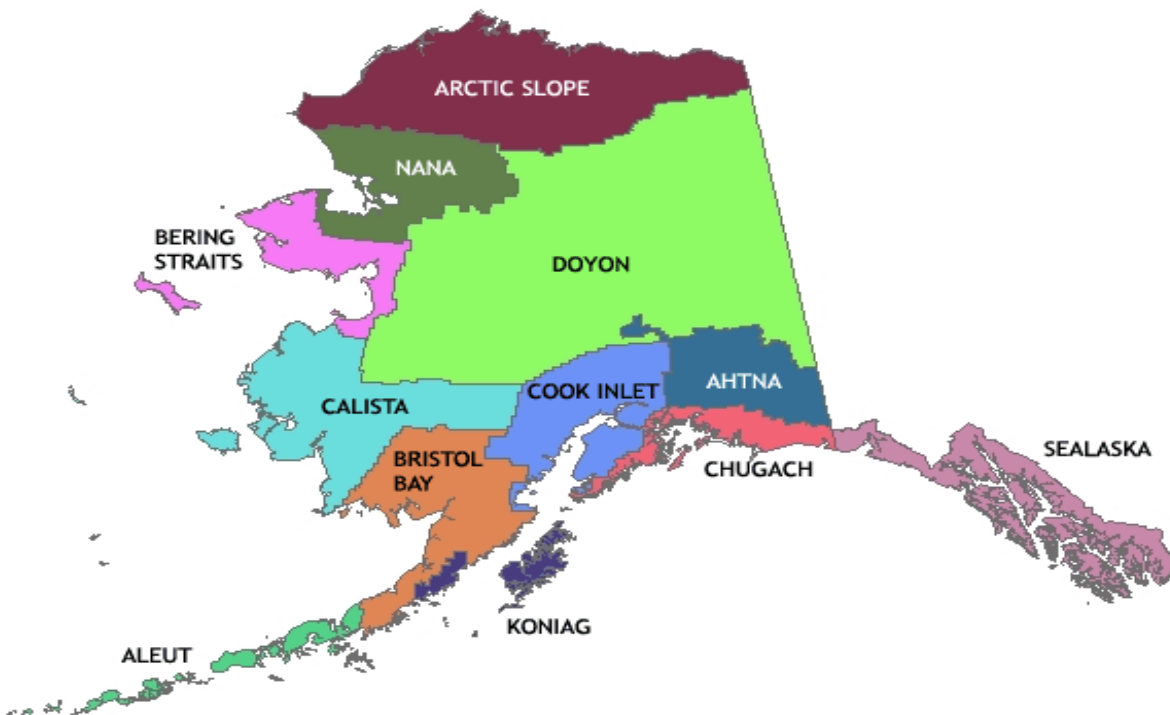
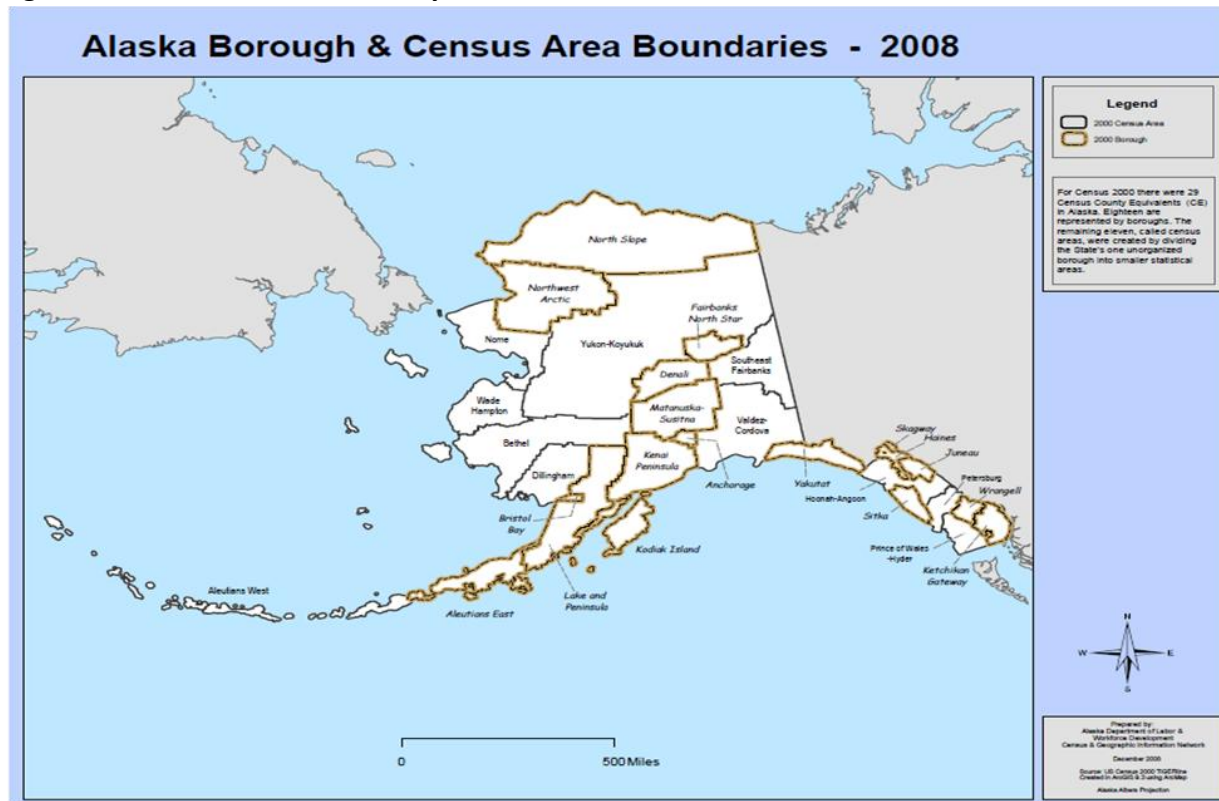


Figure 2. Native Corporation Regions



Source: First Alaskans Institute

Figure 3. Alaska Census Area Map



Source: 2000 Census, Alaska Department of Labor and Workforce Development

Figure 4. Alaska Energy Regions Map



Source: Alaska Energy Authority

Appendix D

Data Sources for Electric Energy Statistics

The primary data source for the electric power statistics is the U.S. Department of Energy (DOE), Energy Information Administration (EIA). Every utility and industrial (including military) electrical generating facility with a capacity greater than one megawatt is required to report their operating characteristics to the EIA annually, and in some instances, monthly. This information is compiled by the EIA and is available for every generating facility on their website: (<http://www.eia.doe.gov/>). We obtained data for the years 2002 through 2008. The forms of interest to compile this publication are the EIA 860, 861 and 923, formerly EIA 906 and EIA920. These are reporting forms for capacity, generation, sales and revenues.

The use of the EIA database is a continuation of the methodology used in the 2003 *Alaska Electric Power Statistics* update. Before the 2003 update, the report's primary data source was a questionnaire sent to each Alaska utility and industrial facility. There were several reasons to use the federal database for this report rather than a survey. First, most utilities and industrial facilities are required by law to report to the federal government each year on their activities using the EIA forms. Since this information for each utility is available on the EIA website, it is redundant to collect the same information through a second questionnaire. It is also considerably less expensive to collect the data from the EIA website than to collect it through a mail-out survey. Furthermore, using the EIA data reduces the reporting burden placed on the utilities and industrial producers of electricity. Finally, respondents are required by law to report to the EIA and this should make the response rate high. In addition, obtaining generating characteristics from a single source helps to insure consistency between federal and state reports.

Nonetheless, using EIA data poses some challenges because not all information reported in this publication is collected via the EIA forms. First, the smallest utilities with installed capacity less than one megawatt, are not required to report to EIA and are not included in the EIA database. Second, not all Alaska generating facilities report as required by law.

Data collected in the forms are available in sets of databases that may present portions of the data differently. For instance, some data may be available at the utility level only, while other data may be at the facility and/or generator level. The forms are processed by different departments within EIA and may have differences in the underlying definition of the data making reconciliation of the information in the datasets within forms, and across the different forms sometimes difficult. Finally, the lag time for the availability of the federal data is approximately two years.

The biggest challenge was identifying missing utilities and other generating units and incomplete data from reporting units. In an effort to identify all utilities and generating facilities in Alaska, we created a comprehensive list of electric utilities using a combination of the lists of utilities from the 2003 *Alaska Electric Power Statistics* report, the EIA databases, the Power Cost

Equalization program (PCE) database, the master utility list from the Regulatory Commission of Alaska, and the Alaska Department of Environmental Conservation (DEC) AIRTOOLS database.¹ To fill in missing data we used the database for the annual Power Cost Equalization Reports by the Alaska Energy Authority (AEA). Also, as needed, ISER supplemented these data sources by conducting direct surveys of utilities, industrial and military generators.

These data sources allowed us to collect information for almost all the utilities and important industrial generating facilities in the state without incurring the considerable cost of conducting a complete census of all producers. A few of the smallest utilities that were not either in the EIA database or the Power Cost Equalization database did not provide information for this report. These small utilities were all contacted by email and phone.

The 2008 Power Cost Equalization data provided data on the generation and sales (residential and commercial) of all utilities participating in the Power Cost Equalization program, including a breakdown by community for those utilities that operate in multiple communities, such as Alaska Village Electric Cooperative (AVEC) and Alaska Power and Telephone (AP&T). The EIA data for these utilities was in some cases reported only as a total across all communities, and we used this as control totals. AEA, AVEC, AP&T and NSPL provided helpful assistance in supplying installed capacity information for each plant not originally included in the PCE database. In this case we were able to publish information taken directly from the utility reflecting statistics from each of its serviced communities.

The PCE database contains information collected through AEA's PCE Utility Monthly Report which PCE participants must file. Utilities also report to the RCA annually for fuel cost adjustments. Reporting to both entities should be consistent, however discrepancies are not unusual. These discrepancies may be due to high turnover in small utilities, poor reporting and limited staff to verify the utilities' self reported data.

In addition, there are data (energy loss, use by facility and energy provided without charges) that is not included in the PCE report. Because of this, the values found in table 2.2a may not reflect a summation of all AP&T communities as reported in the PCE report. Rather they reflect what was reported to the EIA directly as prepared by the utility itself. This same methodology was implemented in the sales and revenues tables (2.4a) when deemed appropriate. The intent is to create as comprehensive of a table as possible.

The summary information in the historical tables was calculated from the same sources mentioned above. Data from these sources was calculated and re-formatted where appropriate and consolidated into master data files from which all the tables in this report were built. Inevitably the use of multiple data sources introduces some inconsistencies in reporting. Notwithstanding, we believe that the *Alaska Electric Power Statistics* 2010 update report provides useful information on the state of electric power generation in Alaska.

¹ The AIRTOOLS database contains information on all stationary facilities that are required to register for an emissions permit, under Title V of the 1990 federal Clean Air Act.

Appendix E

Reporting Requirements

Energy Information Administration

Every utility, industrial and military electrical generating facility with a capacity greater than one megawatt (MW) is required to report their operating characteristics to the US Department of Energy (DOE), Energy Information Administration (EIA) annually, and in some instances, monthly. This information is compiled by the EIA and is available for every generating facility on their website (<http://www.eia.doe.gov/>). Specific reporting requirements are determined by the Department of Energy but collected, assembled, and evaluated by the EIA according to the Federal Energy Administration Act of 1974. We obtained data for years 2002 through 2008. Three EIA forms were used in this report:

- **EIA-860 Annual Electric Generator Report.** This report contains information on capacity and types of fuel used. It is completed by all existing plants and proposed (5-year plans) plants that: 1) have a total generator nameplate capacity (sum for all generators at a single site) of one MW or greater; and 2) where the plant is connected to the local or regional electric power grid and has the ability to draw power from the grid or deliver power to the grid.
- **EIA -860M Monthly Update to the Annual Electric Generator Report.** This report contains monthly updates to the EIA-860. It is completed by those who also completed EIA-860 and additionally indicated a proposed change in generator production within one month of the report period. The proposed change may be due to: 1) a new generator scheduled to start commercial operation; 2) an existing generator scheduled to retire from service; or 3) an existing generator with a proposed modification scheduled.
- **EIA-861 Annual Electric Power Industry Report.** This report contains information on peak production, net generation, sales, and revenues. It is completed by electric industry distributors including: electric utilities, wholesale power marketers (registered with the Federal Energy Regulatory Commission), energy service providers (registered with the Regulatory Commission of Alaska), and electric power producers.
- **EIA-923 Power Plant Operations Report.** Since the 2003 production of this report, EIA has changed some forms. The data collected in Forms 906 and 920 have been combined and are now reported in form 923. This report contains information on electric power generation, fuel consumption, fossil fuel stocks, and fossil fuel cost and quality. It is completed by all electric power plants that: 1) have a total generator nameplate capacity (sum for generators at a single site) of one MW or greater; and 2) where the

plant is connected to the local or regional electric power grid and has the ability to draw power from the grid or deliver power to the grid.

Power Cost Equalization Program and Regulatory Commission of Alaska

Participants of the Power Cost Equalization (PCE) program report to the Regulatory Commission of Alaska (RCA) for fuel cost adjustments to their rates. The RCA has authority to maintain accounts and records of public utilities that fall under its jurisdiction, under Alaska Statute 42.05.451. This responsibility allows the Regulatory Commission of Alaska to obtain information from regulated utilities. Additionally, all utilities that serve ten or more customers must obtain an operating certificate, which describes the authorized service area and scope of operations of the utility. The RCA will issue a certificate when it finds the utility to be fit, willing, and able to provide the service. The RCA maintains a list of both regulated and unregulated certified utilities. Utilities report annually to the RCA, but file a PCE Utility Monthly Report with AEA.

Alaska Department of Environmental Conservation

To identify any new or missing electricity generators, we reviewed and requested specific data fields from the Alaska Department of Environmental Conservation (DEC) AIRTOOLS database. The AIRTOOLS database contains information on all stationary facilities that are required to register for an emissions permit, under Title V of the 1990 federal Clean Air Act. This Act is administered by the U.S. Environmental Protection Agency (EPA), which has responsibility for protecting and improving the nation's air quality and stratospheric ozone layer. This responsibility is administered in Alaska via DEC. The AIRTOOLS database provided an additional list of facilities not required to report to either the DOE or the RCA, mostly industry generators. Facilities requiring an air emissions permit meet at least one of the following criteria: 1) a potential to emit greater than 100 tons per year of a regulated air contaminant; 2) a combustion source with a rated capacity greater than 100 MMBtu/hour; or 3) a combustion source with emission control equipment with a rated capacity greater than 50 MMBtu/hour. Facilities initially identified from the AIRTOOLS database were contacted by phone and/or email to determine whether they are currently electricity self-generators. Once, their generating status was established data for this report was requested.